

ST. COLUMBA'S SCHOOL
CLASS XII 2024-2025
CONTINUOUS LEARNING PLAN & ASSESSMENT

ENGLISH

GENERAL LEARNING COMPETENCIES

The students will be able to

1. acquire a reasonable degree of language proficiency in English language
2. appreciate the various genres of texts presented in the syllabus
3. hone language abilities for effective reading, writing, listening and speaking skills

APRIL

1. The Last Lesson (Flamingo)

- Summarize the story 'The Last Lesson' in a gap-filling exercise. (Understand)
- Recall the important points of the story through a short answer type quiz and multiple-choice answer quiz. (Remember)
- Write the character sketch of Mr. M. Hamel. (Create)
- Practice time management and overcome the habit of procrastination (Apply)
- Infer the meaning of metaphorical statements in the story (Analyze)
- Evaluate the linguistic chauvinism of Germans who forced their language upon the French (Evaluate)

(SDG 4: Quality education
SDG 16: Peace justice and strong institution)

2. My Mother at Sixty-Six (Flamingo)

- Paraphrase the poem 'My Mother at Sixty-six' by Kamala Das in a cloze exercise, MCQ and Fill in exercise. (Remember)
- Identify the figures of speech used in the poem (Remember)
- Justify the title of the poem by writing a note on it. (Evaluate)
- Analyse the important phrases in the poem by attempting a reference to context exercise. (Analyse)

(SDG3: Good health and well being)

MAY

1. The Third Level (Vistas)

- Summarize the story in a gap-filling exercise. (Understand)
- Recall the important points of the story through a questionnaire, fill-in, reference to the context and MCQ quiz. (Remember)
- Write the character sketch of Mr. Charley (Create)
- The role of Charley's Psychiatrist (Analyze)
- Debate if Charlie had visited third level by writing a short note on it. (Evaluate)

(SDG 11: Sustainable cities and communities
SDG 16: Peace justice and strong institutions)

2. A Thing of Beauty (Flamingo)

- Acquaint themselves with the life and works of John Keats
- Explain why the poet describes beauty as a constant source of joy.
- Enumerate the things of beauty listed by the poet in nature
- Justify how beauty can also be found in the grand tales of great lives.
- Discuss the effect of beauty in uplifting spirits and
- Identify the poetic devices and their use in the poem (SDG 15: Life on Land)

3. Poets and Pancakes - (Flamingo)

- Discuss the narrative which gives an insight into how different people work together despite their casual dislike for each other

3. Aunt Jennifer's Tigers (Flamingo)

- Describe the tigers created by Aunt Jennifer
- Contrast the personality of the tigers with that of her own
- Identify the figures of speech
- Co-relate the tigers with Aunt Jennifer's desire to escape the oppression of her marriage
- Discuss how Aunt Jennifer is a representative of women all over the world who could not break away from the chains of marriage.

(SDG 5: Gender Equality)

4. Job Application - (Writing)

- Discuss the significance of drafting a good job application
- List the essential qualities and pieces of information that are necessary for the job application
- Frame statements appropriately for a job application
- Draft the bio-data with information in the correct sequence.
- Compose job applications for a variety of posts.

REVISION

5. School Notices and General Notices (Writing)

- Comprehend the purpose of writing notices.
- Apply the correct format while writing a notice
- Recognise the kind of notices that appear for school events.
- Arrange and present relevant information based on inputs provided for the notice.
- Compose notices with relevant content on a variety of topics

6. Letter to the Editor

- Guide and motivate students to express and write effectively.
- Develop knowledge and purpose of writing a Letter to the Editor
- Awareness of the form, content and process of writing
- Organize ideas on a particular subject
- Create social awareness.

SDG 11 - Sustainable cities and communities

SDG 16 - Peace Justice and Strong institution

- Evaluate how the reel life is different from real life
- Recount and do a character sketch of Kothamanglam Subbu, Office boy and the Lawyer
- Familiarize themselves with one of India's pioneering and influential film-producing organisations of India, Gemini Studios of Madras (Chennai)
- Infer, from the autobiographical text, how the narrator, even though he was entrusted with the clerical task of cutting and pasting newspaper articles, learned a lot about the functioning of Gemini Studios.

(SDG 8: Decent work in economic growth

SDG 17: Partnerships for the goals)

4. Formal & Informal Invitations and Replies

(Writing)

- Comprehend the purpose of writing informal invitations and their replies.
- Apply the correct format while writing an invitation
- Recognise the kind of invitations given out to people depending on their relationship with the writer.
- Arrange and present relevant information based on inputs provided for the invitation.
- Compose invitations with relevant content for a variety of events

(SDG 17: Partnerships for the goals)

Holiday homework: Article writing, report writing and project work.

JULY

1. Going Places (Flamingo)

- Discuss the theme of adolescent fantasizing and hero worship
- Identify the teenage aspirations created by Sophie through her vivid imagination
- Recall the instances where Sophie is lost in her imaginative world.
- Distinguish, when Sophie is saying the truth and when she is making up things
- Analyze the need for the writer to explore such a theme.

(SDG 10: Reduce inequalities.

SDG 3: Good health and well-being)

2. The Enemy (Vistas)

- Recall the Second World War as the background of the story that eventually culminates in dropping of atom bombs on Hiroshima and Nagasaki by America.
- List the reasons why Dr. Sadao was considered indispensable for Japan and the General in particular
- Discuss why he and his wife decide to bring an enemy soldier to their house
- Describe the attitude of the servants towards the enemy soldier, the doctor and his wife.
- Justify the actions of the doctor who rose above narrow prejudice and valued humanity
- Elaborate how Dr. Sadao managed to remain loyal to both his country and his profession.
- Justify "The Enemy" as a befitting title for the story.

(SDG3: Good health and well being

SDG 4: Quality Education

SDG 16: Peace justice and strong institutions)

3. Keeping Quiet (Flamingo)

- Identify the benefits of keeping quiet mentioned by the poet.
- Explain the poet's call for introspection for all human beings who have divided themselves based on race, language, and nationalities.
- Discuss the futility of self-destructive activities and war, carried out by mankind.
- Practice sitting in silence to introspect upon one's actions and future plans.
- Identify the poetic devices and explain their use.

AUGUST

1. Indigo (Flamingo)

- Recall from their history lessons the anecdotes about India's freedom struggle
- Recognize instances of leadership shown by Gandhi
- Compare and contrast the changes brought about in Champaran after Gandhi's visit
- Empathise with the poor farmers always living in fear and under subjugation
- Evaluate the role of Gandhi and his method of work through the chapter
- Compose well-structured answers based on their comprehension of the lesson

(SDG 10: Reduce inequalities.

SDG 16: Peace justice and strong institutions)

2. Lost Spring (Flamingo)

- Summarize the stories in a gap-filling exercise. (Understand)
- Recall the important points of the story through a short answer type quiz, multiple-choice answer quiz, reference to the context, and true and false. (Remember)
- Write the character sketch of Saheb and Mukesh (Create)
- Infer the meaning of metaphorical statements and other figures of speech in the story by writing a short note on them (Analyze)
- Discuss the perpetual state of poverty, hazards of engaging children in child labour, the culprits who keep them bound to a life of poverty (Evaluate)
- Reflect on the title of the story.

(SDG 1: No poverty

SDG 2: Zero hunger)

3. Tiger King (Vistas)

- Familiarize themselves with specific Royal Indian background information of the author/history of cruel insensitive kings who found pleasure in hunting and killing innocent animals.
- Understand the importance of becoming sincere and trustworthy in thought and action.
- Being more sensitized to be understanding, responsible, tolerant and have respect for class identities – democratic citizenship.
- Understand the importance of wildlife conservation and discuss the methods to sustain ecological balance

<p>(SDG 16: Peace justice and strong institutions SDG 12: Responsible consumption and production)</p> <p><u>4. Report Writing (School magazine + General)</u></p> <ul style="list-style-type: none"> - Understand the use of formal language and need for objectivity while writing reports. - Identify points for the introduction, body and conclusion - Choose words and phrases to make the content effective - Write reports on a variety of topics for newspapers/ school magazines <p>(SDG 16: Peace justice and strong institutions)</p> <p><u>REVISION</u></p> <p>Report Writing Article Writing Letter to the Editor Notice Writing</p>	<p>(SDG 15: Life on land) (SDG3: Good health and well-being) (SDG 16: Peace justice and strong institutions)</p> <p><u>4.Deep Water (Flamingo)</u></p> <ul style="list-style-type: none"> - Identify the characteristics of an autobiographical account. - Recount the unpleasant experiences suffered by William that set the fear of drowning within him. - Relate the experience of inexplicable fear and ways to overcome it. - Describe the intensive training undertaken by the narrator to become a swimmer. - Recall how the author tested if he still had residual fears of drowning. <p>(SDG 3: Good health and well-being)</p>
<p style="text-align: center;"><u>SEPTEMBER</u></p> <p><u>1.A Roadside Stand (Flamingo)</u></p> <ul style="list-style-type: none"> - Acquaint themselves with the life and works of Robert Browning. - Analyse the central theme of the poem - Identify the poetic devices used in the poem - Paraphrase the poem to convey meaning effectively. - Be sensitised towards the sorrow of the rural folk who yearn to make a decent living. <p>(SDG 10: Reduce inequalities SDG 1: No poverty)</p> <p>REVISION FOR TERM 1 EXAMINATIONS</p>	<p style="text-align: center;"><u>OCTOBER</u></p> <p><u>1. Memories of Childhood (Vistas)</u></p> <ul style="list-style-type: none"> - Become aware about problems related to casteism and racial discrimination. - Compare and contrast the lives and circumstances of the two protagonists - Connect similar situations in different storylines/life experiences. - Initiate the role of an ambassador in the world ridden with racial and class differences. - Recognize the universal/global theme of inequality. <p>(SDG 10: Reduce inequalities SDG 16: Peace justice and strong institutions)</p> <p><u>2. Journey to the End of the Earth (Vistas)</u></p> <ul style="list-style-type: none"> - Foster understanding and respect among the students for the planet - Develop insight in students about how visiting Antarctica gives a glimpse of Earth’s past, present and future - Analyze the threats of global warming on the polar regions - Engage youth as active citizens to save the planet - Instill youth to develop the initiatives for global sustainability <p>(SDG 13: Climate action SDG 17: Partnerships for the goals SDG 12: Responsible consumption and production)</p>

3. The Rattrap (Flamingo)

- Recall the synopsis of the story.
- Analyze the values and thought processes of the peddler throughout the story.
- Identify the insecurity while tackling personal fears and horrors that lurk in the recesses of our mind.
- Explain the life-altering effect of Edla's act of kindness towards the peddler.
- Discuss whether the change in the peddler would be a lasting one.

(SDG 1: No poverty
SDG2: Zero hunger
SDG3: Good health and well being
SDG 10: Reduce inequalities.)

4.The Interview (Flamingo)

- Students will be familiar with the prominent personalities discussed in the chapter.
- Comprehend the concept and intricacies of an interview
- Acquire a new set of vocabulary through the chapter.
- Compare and extrapolate what they read in the chapter with the kind of interviews they have seen on television or have read in newspapers.
- Self-assess their understanding of the text through practice questions.

(GOAL 9: Industry, Innovation and Infrastructure
SDG 17: Partnerships for the goals
SDG 4: Quality Education)

NOVEMBER

1.On the Face of It (Vistas)

- Identify the deformities suffered by Derry and Mr. Lamb.
- Contrast the personalities of both characters and their attitude towards life.
- Explain how Mr. Lamb encourages Derry to look at the bright side of things and adapt to the reality of life bravely.
- Empathise with victims of various deformities who feel the sense of alienation and lack of acceptance.
- Justify the title 'On the Face of It'.

(SDG3: Good health and well-being)

<u>DECEMBER</u>	<u>JANUARY</u>
EXAMS	EXAMS

Kindly note:

* THE SYLLABUS IS SUBJECT TO CHANGE ACCORDING TO THE INSTRUCTIONS THAT COME LATER DURING THE ACADEMIC SESSION BY THE CBSE.

* ANY LESSON THAT IS NOT COMPLETED WITHIN THE STIPULATED TIME WILL BE CARRIED FORWARD TO THE NEXT WEEK/ MONTH.

ASSESSMENT PLANNER

<p>Periodic Test - 1</p> <p>40 Marks</p>	<p>SYLLABUS</p> <p>Comprehension passage, Notice writing, Letter to the editor, The Last Lesson, My mother at sixty six, Aunt Jennifer's Tigers</p>
<p>Half Yearly Exam</p> <p>100 Marks</p> <p>Theory/Practical</p> <p>(80/20)</p>	<p>SYLLABUS</p> <p>2 Comprehension passages,</p> <p>Writing Skills - Notice, invitations, letter to the editor, Job Application, Article writing, Report writing</p> <p>Literature: LAST LESSON, MY MOTHER AT 66, AUNT JENNIFER'S TIGERS, THE THIRD LEVEL, POETS AND PANCAKES, A THING OF BEAUTY, GOING PLACES, THE ENEMY, KEEPING QUIET, INDIGO, LOST SPRING, THE TIGER KING, DEEP WATER, A ROADSIDE STAND</p> <p>Practical - Speaking Skills + Listening Skills</p>
<p>PRE-BOARD – 1 & 2</p> <p>100 Marks</p> <p>Theory/Practical</p> <p>80/20</p>	<p>SYLLABUS</p> <p>Comprehension passages, Notice writing, Formal/Informal Invitation and replies, Letters (Application for a Job, Letters to the Editor), Article writing, Report Writing.</p> <p>Flamingo & Vistas - All Prose and Poems prescribed in CBSE curriculum 2024-25</p> <p>Practical - Project + VIVA</p>

ACCOUNTANCY

Overall Learning Outcomes

- Students will be able to relate and demonstrate good comprehension of concepts in areas of the student's interest or professional field.
- Students will demonstrate the ability to apply basic conceptual rules of accountancy, including the nature and the interpretation.
- Students will be able to identify the account,, evaluate its nature, and know its placement as Debit or Credit.
- Students will demonstrate the ability to evaluate, integrate, and apply appropriate learning from various topics to create comprehensive analysis, segment wise reporting and interpretation with suitable propositions.

APRIL

TOPICS WITH LEARNING OUTCOMES

Analysis of Financial Statements:

Financial Statements of a Company:

LEARNING OUTCOMES

The student will be able to :

- . Locate and Choose the correct placement of the Accounting information.
- . Interrelate the items from the various financial statements.
- . Organize and explain its relevance.

Financial statements of a company:

Balance sheet, Profit and loss account or Statement of profit and loss, Notes to accounts. Format of balance sheet heads and contents of balance sheet statement of profit and loss format of statement of profit and loss heads and contents of statement of profit and loss

Financial Statement Analysis:

The student will be able to :

- . Recall the meaning of financial statement analysis,
 - . Apply the tools or techniques of financial statement analysis,
 - . Enumerate the types of financial statement analysis,
 - . Distinguish between horizontal analysis and vertical analysis,
 - . Assess the process of financial statement analysis,
 - . Restate the purposes and significance of financial statement analysis,
 - . Explain the uses of financial statement analysis,
 - . Express the parties interested in financial statement analysis,
- Outline the limitations of financial statement analysis.**

Analysis

Accounting Ratios :

The study of this chapter would enable the student to:

- . Recite the meaning of ratio and accounting ratio,
- . List the meaning of ratio analysis,
- . Describe the objectives and advantages of ratio analysis, limitations of ratio analysis,
- . Classify the types of accounting ratios:
- . Interpret and solve:
liquidity ratios,
solvency ratios,
activity ratios,
profitability ratios.

Cash Flow Statements:

The study of this chapter will enable the student to

- . Demonstrate the meaning of cash flow and cash flow statement,
- . Lay out the objectives of cash flow statement,
- . State the importance or uses of cash flow statement,
- . Express the limitations of cash flow statement,

MAY

TOPICS WITH LEARNING OUTCOMES

Cash Flow Statements continued:

- . Computation of cash flow from different activities:
cash flow from operating activities
cash flow from investing activities
cash flow from financing activities,
- . Preparation of cash flow statement.

Project Work

JULY

TOPICS WITH LEARNING OUTCOMES

Partnership Accounting

Partnership Accounting:

Fundamentals: The study of the chapter would enable the student to

- . Understand the meaning and definition of partnership,
- . Enumerate the essential features and characteristics of partnership,
- . Tell the rights of partners,
- . Generalise the partnership deed,
- . Infer the provisions affecting accounting treatment in the absence of partnership deed,
- . Treatment of interest on loan by the partner to the firm and by the firm to the partner,
- . Clarity of the distribution of profit among partners –
- . Drawing up of Profit and Loss appropriation account,
- . Using special aspects of partnership accounts:
 - . conceptual base of
partner's capital accounts - under fixed and fluctuating methods,

- salary or commission to partners,
- interest on partners' capital,
- interest on partners drawings,
- adjustments for incorrect appropriations of profits in the past,
- . Solve using accounting base the guarantee of profit.

Goodwill (Nature & Valuation) : The study of this chapter would enable students to:
Know the meaning of goodwill,

- . Understand the characteristics or features and nature of goodwill,
- . Express the need for valuing Goodwill,
- . List the factors affecting the value of goodwill,
- . State classification of goodwill,
- . Name methods of valuation of goodwill :
 - average profit method,
 - simple average profit method ,
 - weighted average profit method,
 - super profit method,

capitalisation method – capitalisation of average profit, capitalisation of super profit,

- . Locate difference between average profit and super profit.

Change in profit sharing ratio: The study of this chapter would enable the students to :

- . Recognize the concept of reconstitution of partnership,
- . Point the meaning of change in profit sharing ratio among the existing partners,
- . Determination of sacrificing ratio and gaining ratio,
- . Computation and Calculation of
 - accounting of goodwill,
 - accounting of reserves,
 - accumulated profits and losses,
- . Formulate Revaluation of Assets and reassessment of liabilities,
- . Preparation of balance sheet of the reconstituted firm.

AUGUST

TOPICS WITH LEARNING OUTCOMES

Admission of a partner : The study of this chapter would enable students to :

- . Know admission of a partner,
- . Quote the effects of admission of a partner,
- . Infer the meaning and calculation of new profit sharing ratio,
- . Understand and apply the meaning and calculation of
 - sacrificing ratio,
 - valuation and adjustment of goodwill as per accounting Standard 26,
 - revaluation of Assets and reassessment of liabilities,
- . Preparation of revaluation account,
- . Illustrate adjustment of deferred revenue expenditure,
- . Interpret the accounting of reserves,

accumulated profits and losses.

Retirement of a Partner:

The students would be able to :

- . Describe the meaning of retirement of a partner,
- . Determine new profit sharing ratio of the remaining or continuing partner's after retirement of a partner,
- . Calculate gaining ratio of the remaining or continuing partners,
- . Distinguish between sacrificing ratio and gaining ratio,
- . Value and adjust the goodwill on retirement of a partner,
- . Revalue the Assets and Reassess the liabilities on retirement of a partner,
- . Adjust reserves accumulated losses and profits on retirement of a partner, c
- . Compute of amount due to the retiring partner,
- . Apply the methods of payments of the amount due to the retiring partner.

SEPTEMBER

TOPICS WITH LEARNING OUTCOMES

Death of a partner: The study of the chapter would enable students to:

- . Conceptualise the death of a partner with change in profit sharing ratio:
- . Computate new profit -sharing ratio and gaining ratio of the remaining for continuing partners after death of a partner,
- . Adjust goodwill on death of a partner,
- . Match the revaluation of Assets and reassessment of liabilities,
- . Recall adjustment of reserves accumulated profits and losses,
- . Work out the share of profit or loss of deceased partner in the year of death,
- . Computation of the amount due to deceased partner, payment of amount due to legal heirs or executors of the deceased partner.

Dissolution of the Firm: The study of the chapter would enable the student to:

- . Explain the meaning of dissolution of partnership firm,
- . Remember the modes of dissolution of a firm,
- . Distinguish between dissolution of firm and dissolution of partnership,
- . Draw settlement of accounts,
- . Distinguish between firm's debt and private debt's,
- . Accounting on dissolution of partnership firm,
- . Distinguish between revaluation account and realisation account.

OCTOBER

TOPICS WITH LEARNING OUTCOMES

Accounting for Companies:

Issue of Shares: The study of this chapter would enable the student to:

- . Explain the meaning and characteristics of a company,
- . Distinguish between partnership and company,
- . Recall kinds of companies,
- . Express the meaning of share Capital,
- . Classify kinds of shares,
- . Clarity of the accounting treatment of issue of shares for cash at par and at premium,
- . Demonstrate the oversubscription of shares, undersubscription of shares,
- . Follow the accounting treatment of calls in arrears and calls in advance,
- . Apply the accounting treatment of shares issued for consideration other than cash,
- . Evaluate the procedure and accounting treatment of forfeiture and reissue of shares,
- . Define the concept of preferential allotment,
concept of private placement of shares,
concept of employees stock option plan.

NOVEMBER

TOPICS WITH LEARNING OUTCOMES

Issue of Debentures: The study of this chapter would enable the student to:

- . Explain the meaning and characteristics of features of debenture,
- . Outline the meaning of bond,
- . Distinguish between debenture and share, debenture holder and shareholder,
- . Classify the types of debentures,

The study of this chapter would enable the student to :

**Know the Accounting treatment of
issue of debentures for cash at par,
at premium and discount,
issue of debentures for consideration other than cash,
issue of debentures as collateral security,
. Infer the accounting treatment of interest on debentures, writing off discount or loss on issue of debentures.**

DECEMBER

TOPICS WITH LEARNING OUTCOMES

Revision

ASSESSMENT PLANNER 2023-2024

Periodic Test - 1 40 Marks May	SYLLABUS Analysis of Financial Statements: Financial Statements of a Company Analysis Tools of Financial Statements Accounting Ratios Cash Flow Statements
Half Yearly Exam Theory / Prac 80/20 Theory 80 Marks Sept.	SYLLABUS Analysis of Financial Statements: Financial Statements of a Company Analysis Accounting Ratios Cash Flow Statements Partnership Accounting: Fundamentals Goodwill (Nature & Valuation) Change in profit sharing ratio Admission of a partner Retirement & Death of a Partner Dissolution of the Firm
PRE BOARD – 1 & 2 Theory / Prac 80/20 Theory 80 Marks Dec Jan	SYLLABUS Analysis of Financial Statements: Financial Statements of a Company Analysis Tools of Financial Statements Accounting Ratios Cash Flow Statements Partnership Accounting: Fundamentals Goodwill (Nature & Valuation) Change in profit sharing ratio Admission of a partner Retirement & Death of a Partner Dissolution of the Firm Issue of Shares Issue of Debentures

ENTREPRENEURSHIP

LEARNING OUTCOMES

- TO UNDERSTAND THE CONCEPTS AND ELEMENTS OF ENTREPRENEURSHIP
- TO FORM BUSINESS ENTITIES
- DISTINGUISH AMONG VARIOUS FORMS OF BUSINESS ENTERPRISE
- TO GET FIRST HAND KNOWLEDGE ABOUT THE FUNCTIONING OF AN INDUSTRY
- USE SIMPLE BUSINESS ARITHMETIC
- UNDERSTAND THE VARIOUS SOURCES OF FUNDS REQUIRED FOR A FIRM

April

UNIT – 1 ENTREPRENEURIAL OPPORTUNITIES

- SENSING ENTREPRENEURIAL OPPORTUNITIES
- ENVIRONMENT SCANNING
- PROBLEM IDENTIFICATION
- SPOTTING TRENDS
- CREATIVITY AND INNOVATION

May

UNIT – 2 ENTREPRENEURIAL PLANNING

- FORMS OF BUSINESS ENTITIES
- BUSINESS PLAN
- ORGANISATIONAL PLAN
- OPERATIONAL AND PRODUCTION PLAN
- FINANCIAL PLAN
- MARKETING PLAN
- HUMAN RESOURCE PLANNING

July

UNIT – 3 ENTERPRISE MARKETING

- MARKETING AND SALES STRATEGY
- BRANDING, LOGO , TAGLINE
- PROMOTION STRATEGY

August

UNIT – 4 ENTERPRISE GROWTH STRATEGIES

- FRANCHISING: CONCEPTS AND TYPES, ADVANTAGES AND DISADVANTAGES TO FRANCHISOR AND FRANCHISEE
- MERGER AND ACQUISITION: CONCEPT REASON AND TYPES
- REASON FOR MERGERS AND ACQUISITIONS

<p style="text-align: center;"><u>September</u> UNIT – 5 <u>BUSINESS ARITHMETIC</u></p> <ul style="list-style-type: none"> • UNIT OF SALE, UNIT COST, UNIT PRICE FOR MULTIPLE PRODUCT • BREAKEVEN ANALYSIS FOR MULTIPLE PRODUCT • SUBMISSION OF PROJECT - 1 	<p style="text-align: center;"><u>October</u></p> <ul style="list-style-type: none"> • COMPUTATION OF WORKING CAPITAL • INVENTORY CONTROL AND EOQ • ROI /ROE <p style="text-align: center;"><u>UNIT – 6</u></p> <p style="text-align: center;"><u>RESOURCE MOBILISATION</u></p> <ul style="list-style-type: none"> • CAPITAL MARKET : CONCEPT • PRIMARY MARKET: CONCEPT, METHODS OF ISSUE • • SUBMISSION OF PROJECT - 2
<p style="text-align: center;"><u>NOVEMBER</u></p> <ul style="list-style-type: none"> • ANGEL INVESTOR: FEATURES • VENTURE CAPITAL : FEATURES AND FUNDING • REVISION OF PAST YEAR PAPERS 	<p style="text-align: center;"><u>DECEMBER</u></p> <ul style="list-style-type: none"> • Pre-Board
<p style="text-align: center;"><u>JANUARY</u></p> <ul style="list-style-type: none"> • Practical 	

ASSESSMENT PLANNER

<p>Periodic Test - 1</p> <p style="text-align: center;">40 Marks 15-20 MAY</p>	<p style="text-align: center;">SYLLABUS</p> <ul style="list-style-type: none"> • UNIT 1 - ENTREPRENEURIAL OPPORTUNITIES • UNIT 2 – ENTREPRENEURIAL PLANNING
<p>Half Yealy Exam</p> <p style="text-align: center;">Theory / Prac 70/30 80/20 60/40</p> <p style="text-align: center;">Theory 100 Marks 11-22 SEPTEMBER</p>	<p style="text-align: center;">SYLLABUS</p> <ul style="list-style-type: none"> • UNIT 1 - ENTREPRENEURIAL OPPORTUNITIES • UNIT 2 – ENTREPRENEURIAL PLANNING • UNIT 3 – ENTERPRISE MARKETING

PRE BOARD –	SYLLABUS
<p>Theory / Prac 70/30 80/20 60/40</p> <p>Theory 100 Marks</p>	<ul style="list-style-type: none"> • UNIT 1 - ENTREPRENEURIAL OPPORTUNITIES • UNIT 2 – ENTREPRENEURIAL PLANNING • UNIT 3 – ENTERPRISE MARKETING • UNIT 4 – ENTERPRISE GROWTH STRATEGIES • UNIT 5 – BUSINESS ARITHMETIC • UNIT 6 – RESOURCE MOBILISATION

ECONOMICS

(INTRODUCTORY MACROECONOMICS AND INDIAN ECONOMIC DEVELOPMENT)

The prescribed CBSE syllabus aims to help students to ...

1. understand basic economic concepts
2. develop economic reasoning which can be applied in day-to-day life
3. acquire analytical skills to observe and understand economic realities
4. equip students with basic tools of Statistics to understand and analyse economic situations
5. develop problem solving ability
6. expose students to various schools of thought on how economic agents behave in an economy
7. develop an understanding that there can be more than one view on any economic issue and to argue logically with reasoning
8. integrate life skills and values in context of Economics
9. acquaint students with the relationship and interdependence of Economics with other subjects
10. assess and critique the functioning of an economy and the impact of various laws and policy measures.

THE SUSTAINABLE DEVELOPMENT GOALS:

- 1) End poverty in all its forms everywhere
- 2) End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
- 3) Ensure healthy lives and promote wellbeing for all at all ages
- 4) Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- 5) Achieve gender equality and empower all women and girls
- 6) Ensure availability and sustainable management of water and sanitation for all
- 7) Ensure access to affordable, reliable, sustainable and modern energy for all
- 8) Promote sustained, inclusive and sustainable economic growth, full and productive employment & decent work for all
- 9) Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation
- 10) Reduce inequality within and among countries
- 11) Make cities and human settlements inclusive, safe, resilient and sustainable
- 12) Ensure sustainable consumption and production patterns
- 13) Take urgent action to combat climate change and its impacts

- 14) Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- 15) Protect, restore and promote sustainable use of terrestrial ecosystems and halt biodiversity loss
- 16) Promote peaceful and inclusive societies, provide access to justice for all
- 17) Strengthen the means of implementation and revitalize the global partnership for sustainable development

APRIL

- **Ch 1 INDIAN ECONOMY ON THE EVE OF INDEPENDENCE** (SDG 1, 2, 4, 8, 10, 16, 17)

Learning Outcomes:

On completion of the topic, the students will be able to...

- Appreciate the state of the Indian economy on the eve of independence
- Describe the state of agriculture in the economy
- State the impediments to industrial growth during the British rule
- Assess the foreign trade policies introduced by the British
- Interpret the demographic condition of the country
- Summarize the occupational structure
- Discuss the infrastructural development in India during the Colonial rule
- **Ch 2 INDIAN ECONOMY 1950-1990** (SDG 1, 2, 3, 4, 5, 7, 9, 10)

Learning Outcomes:

Study of the topic will enable students to...

- Comprehend the state of the Indian economic system at the time of independence
- Appreciate the need for FYPs to be adopted
- Justify the common goals of the Five Year Plans
- State the major policy initiatives introduced in Agricultural sector
- List the main features and problems of agriculture (institutional aspects and new agricultural strategy)
- Describe the state of industry in India
- Appreciate the policy initiatives to improve industrial development (IPR 1956; SSI – role & importance)
- Elucidate the state of foreign trade in India

MAY

- **Unit 2 MONEY AND BANKING** (SDG 8, 9, 12)

Learning Outcomes:

On completion of the topic, the students will have the ability to

- Define money and appreciate its functions
- Comprehend what supply of money in an economy includes
- Examine the process of money creation by the commercial banking system
- Hypothesize, using examples, how deposit creation takes place.
- List and appreciate the range of functions of the Central bank
- Relate the policy measures introduced by the RBI to the requirements of the current economic situation
- **Unit 4 GOVERNMENT BUDGET AND THE ECONOMY** (SDG 1, 6, 7, 11, 15)

Learning Outcomes:

On completion of the chapter, the students will be able to

- Describe the Government budget – its meaning
- Appreciate and assess the objectives of the budget
- List and classify its components
- Classify receipts into revenue receipts and capital receipts
- Differentiate between revenue expenditure and capital expenditure
- Discuss the government budget deficits – revenue deficit, fiscal deficit, primary deficit
- Draw inferences from the various deficits
- Discuss the best strategy for a developing country like India
- **Ch 3 LIBERALIZATION, PRIVATIZATION, GLOBALIZATION (SDG 8, 9, 17)**

Learning Outcomes:

On completing the unit, the students will be able to

- Ilucidate the features of liberalization and do an appraisal of its benefits
- List the features and assess the advantages of globalization
- State the features and do a critique of the desirability of privatization (LPG policy)
- Critically assess the need and success /failure of demonetization and GST in the country

JULY

- **Ch 3 LIBERALIZATION, PRIVATIZATION, GLOBALIZATION Cont'd (SDG 8, 9, 17)**
- **Unit 1 NATIONAL INCOME ACCOUNTING AND RELATED AGGREGATES (SDG 8, 9, 12)**

Learning Outcomes:

Study of the topic will enable students to

- Define Macroeconomics and distinguish it from Micro
- Interpret and classify consumption goods, capital goods, final goods, intermediate goods
- Differentiate between stocks and flows
- Compare gross and net investment
- Comprehend depreciation and contrast it with capital loss
- Elucidate the circular flow of income (two sector model)
- Understand and use the method of calculating National Income – Value Added method
- Appreciate and apply the Expenditure method
- Compute NY using the Income method
- Understand and contrast the difference between the aggregates related to National Income: Gross National Product, Net National Product, Gross Domestic Product & Net Domestic Product
- Differentiate the estimates at market price and at factor cost
- Compare Real and Nominal GDP and defend their relevance
- Appreciate the connection between GDP and Welfare
- **SUBMISSION OF ECO PROJECT**

Learning Outcomes:

On completion of the project, the students will be able to

- Acquire knowledge and facts about their chosen topic
- Use appropriate presentation techniques to showcase their study
- Analyze, evaluate and examine the motives or causes
- Plan, evaluate and summarize the information collected
- Make inferences and find evidence to support generalizations
- Defend opinions by making judgments about information, validity of ideas, etc

- Compile information together to propose alternative solutions.

AUGUST

- **Ch 5 RURAL DEVELOPMENT** (SDG 2, 8, 9, 11, 16)

Learning Outcomes:

On completion of the topic, the students will be able to

- Comprehend the distinction between rural development versus agricultural growth
 - Discuss the main issues of rural credit and marketing
 - Appraise the role of cooperatives
 - Appreciate the need for agricultural diversification
 - Defend the need for and advantages of organic farming
- **Unit 3 DETERMINATION OF INCOME AND EMPLOYMENT** (SDG 8, 12)

Learning Outcomes:

On completion of the chapter, the students will be able to

- Define Aggregate demand and its components
 - Relate to the concepts of propensity to consume and propensity to save (average and marginal)
 - Derive the consumption and savings curves from one another
 - Express the Short-run equilibrium output
 - Outline the investment multiplier and show the working of its mechanism
 - Define and contrast the meaning of full employment and involuntary unemployment
 - Debate the problems of excess demand and deficient demand
 - Discuss and appraise the measures to correct them – changes in government spending, taxes and money supply through Bank Rate, CRR, SLR, Repo Rate and Reverse Repo Rate, Open Market Operations, Margin requirement
- **Ch 4 HUMAN CAPITAL FORMATION IN INDIA** (SDG 1, 2, 3, 4, 5, 16)

Learning Outcomes:

On completion of the chapter, the students will be able to

- Understand and appreciate how people become a resource
- Identify and express the Role of human capital in economic development
- Discuss the state of human capital formation in India
- Outline the education system in India
- Do a critical analysis of its flaws and strengths

SEPTEMBER

- **Ch 4 HUMAN CAPITAL FORMATION IN INDIA Cont'd** (SDG 8, 12)
- **FIRST TERM EXAMS**

OCTOBER

- **Unit 5 FOREIGN EXCHANGE RATE & BALANCE OF PAYMENTS** (SDG 10, 17)

Learning Outcomes:

Study of the topic will enable students to

- Discuss the determination of Foreign exchange rate through the demand and supply analysis
- Comprehend the meaning of fixed and flexible rates

- Debate the advantages of a managed floating regime
- Comprehend the Balance of payments account
- Define the meaning and classify the components of the BOP account
- Express the meaning of a deficit and surplus in the BOP account
- Contrast between autonomous and accommodating items in the BOP account
- Appreciate the importance of accommodating items
- List ways to meet a deficit
- **Ch 6 PROBLEM OF EMPLOYMENT (SDG 2, 3, 4, 5, 8)**

Learning Outcomes:

On completion of the unit, the students will be able to

- Comprehend the changing structure of employment in India
- Appreciate the growth and changes in work force participation rate in formal and informal sectors
- Identify the problem of general unemployment and growth of informal unemployment
- Evaluate the co-existence of formal and informal sectors in India
- List the policies adopted to improve the employment situation in the economy

NOVEMBER

- **Ch 7 ENVIRONMENT AND SUSTAINABLE DEVELOPMENT (SDG 2, 13, 14, 15, 17)**

Learning Outcomes:

On completion of the topic, the students will be able to

- State the functions and evaluate the role of the environment for human and economic growth and development
- Describe the state of India's environment
- Define the meaning of Sustainable development
- List the effects of economic development on the natural resources and environment, including global warming
- Appreciate the importance and need for sustainable development
- **Ch 8 COMPARATIVE DEVELOPMENT EXPERIENCE OF INDIA & ITS NEIGHBOURS (SDG 10, 11, 17)**

Learning Outcomes:

After studying the topic, the students will be able to

- Compare the development experience of India, China and Pakistan
- Contrast and analyze the programmes and policy initiatives in all three countries
- Paraphrase the rates of economic growth, population transitions, sectoral development and other Human Development Indicators of India, China, Pakistan
- Assess and appraise development strategies adopted in all three countries

NOVEMBER - DECEMBER : PRE-BOARD EXAM 1

JANUARY : PREBOARD EXAM 2

ASSESSMENT PLANNER

- **MAY : Periodic Assessment – 1 40 Marks**

SYLLABUS

Macroeconomics:

- 1 Money and Banking
2. Government Budget and the economy

Indian Economy:

1. Indian economy on the eve of Independence
2. Indian economy 1950-1990

➤ **SEPTEMBER : Half Yearly Exam Theory / Practical :80/20**

SYLLABUS

Macroeconomics:

1. National Income Accounting and Related Aggregates
2. Determination of Income and Employment
3. Money and Banking
4. Government Budget and the Economy

Indian Economy:

1. Indian Economy on the eve of Independence
2. Indian economy 1950-1990
3. Liberalization, Privatization, Globalization
4. Rural Development
5. Human capital Formation

➤ **PRE BOARD – 1 & 2 Theory / Prac 80/20**

Theory Exam: Full Syllabus

Practical: Project File + Viva based on chosen topic

BUSINESS STUDIES

SDG s objectives

- 1) End poverty in all its forms everywhere
- 2) End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
- 3) Ensure healthy lives and promote wellbeing for all at all ages
- 4) Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- 5) Achieve gender equality and empower all women and girls
- 6) Ensure availability and sustainable management of water and sanitation for all
- 7) Ensure access to affordable, reliable, sustainable and modern energy for all
- 8) Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all
- 9) Build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovation
- 10) Reduce inequality within and among countries
- 11) Make cities and human settlements inclusive, safe, resilient and sustainable
- 12) Ensure sustainable consumption and production patterns
- 13) Take urgent action to combat climate change and its impacts
- 14) Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- 15) Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss
- 16) Promote peaceful and inclusive societies, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- 17) Strengthen the means of implementation and revitalise the global partnership for sustainable development

MONTH WISE DISTRIBUTION OF SYLLABUS WITH THEIR LEARNING OUTCOMES:

<u>MARCH- APRIL</u>	<u>LEARNING OUTCOMES</u>
<p><u>Chapter-1: Nature and Significance of Management (SDG -5, 6 , 7 and 10)</u></p> <ul style="list-style-type: none"> • Concept includes meaning and features • Management as a Science, Art and 	<p><u>Chapter-1</u></p> <ul style="list-style-type: none"> • Summarize the concept of management. • Examine the nature of management as a science, art and profession.

<p>Profession</p> <ul style="list-style-type: none"> • Levels of management • Objectives and importance of management • Management functions • Coordination- concept and importance <p><u>Chapter-2: Principles of Management (SDG- 3, 5, 6, 7 and 10)</u></p> <ul style="list-style-type: none"> • Principles of management- concept and significance • Fayol's principles of management 	<ul style="list-style-type: none"> • State the role of levels of management. • Match the functions of management. • Outline the characteristics and importance of coordination. <p><u>Chapter-2</u></p> <ul style="list-style-type: none"> • Identify the concept of principles of management. • Summarize the principles of management developed by Fayol.
<p style="text-align: center;"><u>MAY</u></p> <p><u>Chapter-2</u></p> <ul style="list-style-type: none"> • Taylor's Scientific management- principles and techniques <p><u>Chapter-3: Business Environment (SDG-4, 6, 7, 8 and 9)</u></p> <ul style="list-style-type: none"> • Business environment-concept and importance • Dimensions of business environment • Demonetization- concept and features. <ul style="list-style-type: none"> • PA 1 Exam 	<p><u>LEARNING OUTCOMES</u></p> <p><u>Chapter-2</u></p> <ul style="list-style-type: none"> • Compare the contributions of Fayol and Taylor. • Discuss the taylor's principles and techniques. <p><u>Chapter-3</u></p> <ul style="list-style-type: none"> • Identify and give examples of business environment. • Classify the dimensions of business environment. • Examine the concept and features of demonetization
<p style="text-align: center;"><u>JULY</u></p> <p><u>Chapter-4: Planning (SDG- 8 and 9)</u></p> <ul style="list-style-type: none"> • Concept, importance and limitation. • Planning process • Single use and standing plans. <p><u>Chapter-5: Organising (SDG- 8 and 9)</u></p> <ul style="list-style-type: none"> • Concept and importance • Organising Process • Organisation Structure-Functional and Divisional • Delegation-Concept, elements and importance • Decentralization-Concept and importance 	<p><u>LEARNING OUTCOMES</u></p> <p><u>Chapter-4</u></p> <ul style="list-style-type: none"> • Examine the concept of planning. • List the steps in the process of planning. • Classify and differentiate the types of plans. <p><u>Chapter-5</u></p> <ul style="list-style-type: none"> • State the concept of organizing and express the importance of organising. • Outline the steps in the process of organising. • Classify functional and divisional structures of organisation and interrelate the concepts of formal and informal organization • Discuss the concept and elements of delegation. • Express the concept of decentralisation and distinguish between delegation and decentralisation.

<p style="text-align: center;"><u>AUGUST</u></p> <p><u>Chapter-11: Marketing Management (SDG-8, 9 and 11)</u></p> <ul style="list-style-type: none"> • Marketing- Concept, Functions and Philosophies • Marketing Mix- Concept and elements • Product-Branding, Labelling and Packaging • Price-Concept, Factors determining price • Physical Distribution- concept, components and channels of distribution. • Promotion- Concept and elements, advertising, Personal Selling, Sales Promotion and Public Relations. <p><u>Chapter-12: Consumer Protection (SDG- 5, 8 and 10)</u></p> <ul style="list-style-type: none"> • Concept and importance of consumer protection • Consumer Protection Act, 2019: • Meaning of consumer • Rights and responsibilities of consumers • Who can file a complaint? • Redressal machinery • Remedies available <p>Consumer awareness- Role of consumer organizations and NGO's.</p>	<p style="text-align: center;"><u>LEARNING OUTCOMES</u></p> <p><u>Chapter-11</u></p> <ul style="list-style-type: none"> • Describe the functions of marketing and classify the marketing philosophies. Explain the concept of marketing mix and distinguish the elements of marketing mix. • Generalise the concept of product as an element of marketing mix. • Define the concept of price as an element of marketing mix and state the factors determining price of a product. • Define the concept of physical distribution and categorise the various channels of distribution. • State the concept of promotion as an element of marketing mix and describe the elements of promotion mix. <p><u>Chapter-12</u></p> <ul style="list-style-type: none"> • Define the concept of consumer protection and judge the scope of Consumer Protection Act, 2019. • Infer the concept of a consumer according to CPA, 2019. • Identify the consumer rights. • Point out the responsibilities of consumers. • Describe who can file a complaint and against whom? • Categorise the legal redressal machinery under CPA, 2019. • Examine the remedies available and the role of NGO's in protecting consumer's interests.
<p style="text-align: center;"><u>SEPTEMBER</u></p> <p><u>Chapter-6: Staffing (SDG-5, 8 and 9)</u></p> <ul style="list-style-type: none"> • Concept and importance of staffing • Staffing as a part of HRM • Staffing process • Recruitment process • Selection process • Training and Development- Concept, importance and methods of training. <p><u>Chapter-7: Directing (SDG- 5, 8, 9 and 10)</u></p> <ul style="list-style-type: none"> • Concept and importance • Elements of directing • Maslow's need hierarchy theory of motivation and incentives. 	<p style="text-align: center;"><u>LEARNING OUTCOMES</u></p> <p><u>Chapter-6:</u></p> <ul style="list-style-type: none"> • Discuss the importance of staffing. • List the specialised duties and activities performed by HRM. • Outline the steps in the process of staffing. • Define the meaning of recruitment and classify the sources of recruitment. • Memorize the steps involved in the process of selection • Define the concept of training and development. • Classify on the job and off the job methods of training.

<ul style="list-style-type: none"> • Concept and styles of leadership. • Communication-concept, types and barriers to communication. 	<p><u>Chapter-7:</u></p> <ul style="list-style-type: none"> • Define the concept of directing. • List the various elements of directing. • Draw Maslow’s Need Hierarchy Theory of Motivation. • Distinguish the various styles of leadership. • List the elements of the communication process and list the various barriers to effective communication
<p style="text-align: center;"><u>OCTOBER</u></p> <p><u>Chapter-8: Controlling (SDG- 8, 9 and 10)</u></p> <ul style="list-style-type: none"> • Concept and importance • Relationship between planning and controlling. • Steps in process of control. <p><u>Chapter-9: Financial Management(SDG- 8 and 9)</u></p> <ul style="list-style-type: none"> • Concept, role and objectives of financial management. • Financial decisions- investment, financing and dividend- meaning and factors affecting. • Financial Planning- concept and importance. • Capital Structure- Concept and factors affecting capital structure. • Fixed and Working Capital- Concept and factors affecting their requirements. 	<p><u>LEARNING OUTCOMES</u></p> <p><u>Chapter-8:</u></p> <ul style="list-style-type: none"> • Define and express the concept of controlling. • Interrelate planning and controlling functions. • List down the steps in the process of controlling. <p><u>Chapter-9</u></p> <ul style="list-style-type: none"> • Define the concept of financial management and outline the objectives of financial management. • Compare three financial decisions and the factors affecting them. • Point out the objectives and importance of financial planning. <ul style="list-style-type: none"> • Determine the factors determining the choice of an appropriate capital structure of a company. • Organise the factors determining the requirements of fixed and working capital.
<p style="text-align: center;"><u>NOVEMBER</u></p> <p><u>Chapter-10: Financial market (SDG- 8 and 9)</u></p> <ul style="list-style-type: none"> • Financial Markets: Concept, Functions and types • Money Market. • Capital market and its types. • Stock Exchange- Functions and trading procedure. • SEBI -Objectives and Functions <p>REVISION THROUGH SAMPLE PAPERS</p>	<p><u>LEARNING OUTCOMES</u></p> <p><u>Chapter-10</u></p> <ul style="list-style-type: none"> • Explain the concept of financial market and outline the functions of financial market. • Examine the concept of money market and identify the various money market instruments. • Interrelate primary and secondary markets as types of capital market. • Identify the methods of floating new issues in the primary market.

	<ul style="list-style-type: none"> • Point out the functions of a stock exchange and recall the trading procedure in a stock exchange. • State the objectives and functions of SEBI.
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ASSESSMENT PLANNER

<p><u>Periodic Test - 1</u></p> <p>40 Marks MAY</p>	<p><u>SYLLABUS</u></p> <p>Chapter-1: Nature and Significance of management Chapter-2: Principles of management Chapter-3: Business Environment</p>
<p><u>Half Yearly Exam</u></p> <p>Theory / Prac 80/20 SEPTEMBER</p>	<p><u>SYLLABUS</u></p> <p>Chapter-1: Nature and Significance of management Chapter-2: Principles of management Chapter-3: Business Environment Chapter-4: Planning Chapter-5: Organising Chapter-6: Staffing Chapter-11: Marketing Management Chapter-12: Consumer Protection</p>
<p><u>PRE -BOARD – 1 & 2</u></p> <p>Theory / Prac 80/20 DECEMBER</p>	<p><u>SYLLABUS</u></p> <p>Theory- 80 marks- Full Syllabus Practical- 20 marks- Project Based</p>

PHYSICS 2024-2025

GENERAL LEARNING OUTCOMES

1. Emphasis on basic conceptual understanding of the content.
2. Emphasis on use of S.I. units, symbols, nomenclature of physical quantities and formulation as per international standards.
3. Expose the learners to different processes used in physics- related industrial and technological applications.
4. Develop process-skills and experimental, observational, manipulative, decision making and investigatory skills in the learners.
5. Develop conceptual competence in the learners and make them realise and appreciate the interface of physics with other disciplines

MONTH	TOPICS	SUB-TOPICS	LEARNING OUTCOME
APRIL	Unit1 (Electrostatics)		
	Ch 1 Electric charges and fields	1) Electric Charges; Conservation of charge, Coulomb's law-force between two point charges, forces between multiple charges; superposition principle and continuous charge distribution. 2) Electric field, electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field. 3) Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside).	Students acquire the basic knowledge of Electric charges, concept of electrostatic force in vector form different distribution of charges, Electric field produced by different distribution of charges and its mathematical analysis. Student will be able to relate the phenomena of charging of a body with daily life.
	Ch 2 Electrostatic Potential and Capacitance	1) Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two point charges and of electric dipole in an electrostatic field. 2) Conductors and insulators, free charges and bound charges inside a conductor. 3) Dielectrics and electric polarisation, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor. (No derivation, formula only)	Student will be able to relate the Electrical potential with electric field. Student will be able to understand the working of charge storing device i.e. capacitor.

Unit 2 Current Electricity.			
APRIL And MAY	Ch 3 Current Electricity	<p>1) Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, electrical resistance, V-I characteristics (linear and nonlinear)</p> <p>2) Electrical energy and power, electrical resistivity and conductivity; temperature dependence of resistance. Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel</p> <p>3) Kirchhoff's laws and simple applications, Wheatstone bridge.</p>	<p>learners will understand the concept Electricity, resistance and resistivity and the parameters affecting it with its link to our daily life. learners understand the concept of different electrical devices like wheat stone bridge and its application Students will be able to understand the practical application of resistors and cells and its different combination in real life. Students will be able to operate different electrical instruments like Galvanometer, Voltmeter, ammeter etc. also they learned to find the least count of given measuring instrument</p>
	Unit 3 Magnetic effects of current and Magnetism		
MAY And JULY	Ch 4 Moving charges and Magnetism	<p>1) Concept of magnetic field, Oersted's experiment.</p> <p>2) Biot- Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight solenoids (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields,</p> <p>3) Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors- definition of ampere, torque experienced by a current loop in uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment</p> <p>4) moving coil galvanometer-its current sensitivity and conversion to ammeter and voltmeter.</p>	<p>learners understand the concept of relation between electricity and magnetism and analysis of magnetic field for different kind of symmetrical structure.</p> <ul style="list-style-type: none"> • Student will learn about the relation between electricity and Magnetism and different methods to find the Magnetic field due to different types of conductor. • Student will learn about the force between two parallel conductors and its mathematical analysis depending upon the directions of current. Also how to convert galvanometer into voltmeter and ammeter
	Ch 5 Magnetism and Matter	<p>1) Bar magnet, bar magnet as an equivalent solenoid (qualitative treatment only), magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis, torque on a magnetic dipole (bar magnet) in a uniform magnetic field(qualitative treatment only), magnetic field lines.</p>	<p>Learners will understand the different kinds of magnetic material . It will help them understand the concept of application of magnetic field and how it's used in nature.</p>

		2) Magnetic properties of materials- Para-, dia- and ferro - magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties.	
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Unit 4 EMI and AC			
AUGUST	Ch 6 EMI	1)Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law 2)Self and mutual induction	Students will learn about the different method to induce an emf in a given conductor which is useful to understand the concept of Mutual and self- induction.
	Ch 7 AC	1)Alternating currents, peak and RMS value of alternating current/voltage; reactance and impedance; LCR series circuit(phasors only), resonance; power in AC circuits, wattless current.2)AC generator and transformer	Students acquires the basic knowledge about the principle ,construction ,working and real life application of Transformer and Dynamo
Unit 5 Electromagnetic Wave			
SEPTEMBER	Ch 8 EMW	1)Basic idea of displacement current, Electromagnetic waves, their characteristics, their Transverse nature (qualitative ideas only). 2)Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, Xrays, gamma rays) including elementary facts about their uses. REVISION	learners understand the generation and real life application of electromagnetic wave depending upon the value of wavelength and frequency. Student acquires knowledge about the Practical application of EMW in our Daily life.
Unit 6 Optics			
SEPTEMBER AND OCTOBER	Ch 9 Ray Optics and Optical Instruments	1)Ray Optics: Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and optical fibres, refraction at spherical surfaces, lenses, thin lens formula, lens maker's formula, magnification, power of a lens, combination of thin lenses in contact, refraction of light through a prism. 2)Optical instruments: Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.	Student will learn about the different types of mirror and lenses and respective ray diagrams for image formation along the mathematical tactics and Analysis. Student will learn the different optical instruments which are used in our labs and life .
	Ch 10 Wave Optics	1)Wave optics: Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts. 2)Proof of laws of reflection and refraction	To make the learners to understand the difference between ray optics and wave optics and different

		using Huygen's principle. 3)Interference, Young's double slit experiment and expression for fringe width(No derivation final expression only), coherent sources and sustained interference of light, diffraction due to a single slit, width of central maximum(qualitative treatment only).	optical phenomena such as interference, diffraction.
OCTOBER	Unit 7 Dual Nature of Radiation and Matter		
	Ch 11 Dual Nature of Radiation and Matter	1)Dual nature of radiation, Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation-particle nature of light. Experimental study of photoelectric effect 2)Matter waves-wave nature of particles, de-Broglie relation.	Learners will be able to understand the dual nature of light (Wave and Particle) along with experimental and mathematical verification
OCTOBER AND NOVEMBER	Unit 8 Atoms and Nuclei		
	Ch 12 Atoms	1)Alpha-particle scattering experiment; Rutherford's model of hydrogen atom; Expression for radius of nth possible orbit, velocity and energy of electron in his orbit, of hydrogen line spectra (qualitative treatment only).	learners will understand the basic structure of atoms and nucleus proposed by different scientists and its importance in our life.
	Ch 13 Nuclei	1)Composition and size of nucleus, nuclear force. 2)Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion	Learners will be able to understand the Concept of atoms and nuclei with help of different models developed by different scientists (Rutherford's model, Bohr's model etc.)
NOVEMBER	Unit 9 Electronic Devices		
	Ch 14 Semiconductor Electronics: Materials, Devices and Simple Circuits REVISION	Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Intrinsic and extrinsic semiconductors- p and n type, p-n junction Semiconductor diode - I-V characteristics in forward and reverse bias, diode as a rectifier;	Learners will be able to understand the Concept of Conductors, Insulator and semiconductor with the help of Band Energy Theory. Learners will be able to understand the Classification of semiconductors along with Practical applications in PN diode, Rectifiers.
ASSESSMENT PLANNER			
MAY	PERIODIC ASSESSMENT 1	*ELECTRIC CHARGES AND FIELDS *ELECTROSTATIC POTENTIAL AND CAPACITANCE *CURRENT ELECTRICITY	

	40 MARKS		
SEPTEMBER	TERM 1 THEORY/PAC. 70/30	THEORY—CHAPTER-1 ONWARDS UPTO E.M. WAVES PRACTICALS -5 EXPERIMENTS, ACTIVITY FILE,	
DECEMBER	PREBOARD 1 THEORY/PAC. 70/30	COMPLETE SYLLABUS FOR THEORY PRACTICALS-ALL 8 EXPERIMENTS, ACTIVITY FILE, PROJECT	

PHYSICS PRACTICAL SYLLABUS

APRIL, MAY, JULY AUGUST	<p>EXPERIMENTS</p> <ol style="list-style-type: none"> 1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current. 2. To find resistance of a given wire / standard resistor using metre bridge. 3. To verify the laws of combination (series) of resistances using a metre bridge 4. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit. 5. To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$. 	<p>ACTIVITIES</p> <ol style="list-style-type: none"> 1. To assemble the components of a given electrical circuit. 2. To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram. 3. To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source 4. To study the nature and size of the image formed by a (i) convex lens, or (ii) concave mirror, on a screen by using a candle and a screen (for different distances of the candle from the lens/mirror).
OCTOBER, NOVEMBER	<ol style="list-style-type: none"> 6. To find the value of v for different values of u in case of a concave mirror and to find the focal length. 7. To determine angle of 	<ol style="list-style-type: none"> 5. To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items. 6. To observe refraction and lateral deviation of a beam of

	<p>minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.</p> <p>8.To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias</p> <p>PROJECT WORK</p>	<p>light incident obliquely on a glass slab.</p>
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CHEMISTRY

LEARNING OUTCOMES

STUDENTS WILL BE ABLE TO

- IDENTIFY BASIC CONCEPTS, TERMS AND IMPORTANT EVENTS IN DEVELOPMENT OF ORGANOMETALLIC CHEMISTRY
- UNDERSTAND FUNDAMENTALS OF REACTION MECHANISMS
- PREDICT STRUCTURE, PROPERTIES AND REACTIVITIES OF ELEMENTS.
- IDENTIFY AND SOLVE CHEMICAL PROBLEMS AND EXPLORE NEW METHODS.
- RECOGNIZE IMPORTANCE OF INORGANIC MOLECULES IN SUPPORTING ORGANIC BIOLOGICAL SYSTEM

SDG s objectives

1) End poverty in all its forms everywhere

- 2) End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
- 3) Ensure healthy lives and promote wellbeing for all at all ages
- 4) Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- 5) Achieve gender equality and empower all women and girls
- 6) Ensure availability and sustainable management of water and sanitation for all
- 7) Ensure access to affordable, reliable, sustainable and modern energy for all
- 8) Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all
- 9) Build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovation
- 10) Reduce inequality within and among countries
- 11) Make cities and human settlements inclusive, safe, resilient and sustainable
- 12) Ensure sustainable consumption and production patterns
- 13) Take urgent action to combat climate change and its impacts
- 14) Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- 15) Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss

16) Promote peaceful and inclusive societies, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

17) Strengthen the means of implementation and revitalize the global partnership for sustainable development

MARCH

Students were requested to revise the basic concepts of organic chemistry before they join the classes in March

APRIL

SOLUTIONS(SDG 13, 14,15 & 6)

- to identify the formation of different types of solutions on the basis of different solute and solvent
- to express concentration of solution in different units
- to state and explain Henry's law and Raoult's law for different solutions and solve problems based on them.
- to distinguish between Ideal and non-ideal solutions
- to identify the deviations from Raoult's law for various solutions
- to describe colligative properties of solutions and correlate these with molar mass of solute
- to explain Abnormal colligative properties exhibited by solutes in solutions

ELECTROCHEMISTRY (SDG 9,7,12 &4)

- to understand and demonstrate the working of Galvanic cells and SHE
- to define and paraphrase resistivity, conductivity, cell constant, molar conductivity, study and derive the relation between them

<p><u>MAY</u> <u>ELECTROCHEMISTRY (contd)</u></p> <ul style="list-style-type: none"> • to describe the method for the measurement of the quantities mentioned and discussed in April. • to justify the variation of molar conductivity and conductivity with concentration • to enunciate Kohlrausch's law and learn it's application • to differentiate between ionic and metallic conductance • to state the various laws of electrolysis and apply them to solve numericals based on them • to outline the working of various cells and their types • to discuss and compare the various methods used to prevent corrosion and it's nature. <p><u>CHEMICAL KINETICS (SDG 4 &5)</u></p> <ul style="list-style-type: none"> • to define and differentiate between the average and instantaneous rate of reaction • to express the rate of reaction with respect to change in concentration of reactants and products with time • To define rate constant and examine its variation with temperature using the Arrhenius equation • to derive integrated rate equations for the zero and first order reactions • to describe collision theory of reaction rates and use it to describe the effect of concentration, temperature and catalyst on the rate of reaction • to differentiate between molecularity and order of a reaction and learn to calculate them using the reaction mechanisms given 	<p><u>JULY</u></p> <p><u>Haloalkanes And Haloarenes (SDG 3,9,12 &16)</u></p> <ul style="list-style-type: none"> • to study and apply the various IUPAC nomenclature rules to name Haloalkanes and haloarenes • to study, describe and apply the reactions of haloalkanes and haloarenes and their uses in industries • to understand the stereochemistry involved in the reactions of haloalkanes • To develop ways to inter convert organic compounds based on the reactions studied above <p><u>ALCOHOL, PHENOL AND ETHERS (SDG 4,9 12 &16)</u></p> <ul style="list-style-type: none"> • To apply the nomenclature rules for naming various alcohols ,ethers and phenols • To learn and inter-relate the preparation, properties and uses of alcohols, ethers and phenols • To develop ways to inter convert organic compounds based on the reactions studied above
<p><u>AUGUST</u></p> <p><u>ALDEHYDES, KETONES AND CARBOXYLIC ACIDS (SDG 3,9 12 &16)</u></p> <ul style="list-style-type: none"> • To study and apply the nomenclature rules for aldehydes, ketones and carboxylic acids • To learn and associate the preparation, 	<p><u>SEPTEMBER</u></p> <p><u>BIOMOLECULES (SDG 1,2,3,14 &16)</u></p> <ul style="list-style-type: none"> • To define biomolecules like carbohydrates proteins and nucleic acids • classify carbohydrates, proteins and

<p>properties and uses of aldehydes, ketones and carboxylic acids</p> <ul style="list-style-type: none"> • To distinguish between different functional groups given in the chapter • To develop ways to inter convert organic compounds based on the reactions studied above <p><u>ORGANIC COMPOUNDS CONTAINING NITROGEN (SDG 3,9 12 &16)</u></p> <ul style="list-style-type: none"> • to classify amines as -primary, secondary and tertiary amines and name them according to IUPAC and common nomenclature • to study and associate the preparation, properties and uses of various amines • To distinguish between primary, secondary and tertiary amines • To develop ways to inter convert organic compounds based on the reactions studied above 	<p>nucleic acids according to their structures.</p> <ul style="list-style-type: none"> • to explain the difference between DNA and RNA • to express the various sources of vitamins and explain their deficiency diseases
<p><u>OCTOBER</u></p> <p><u>d AND f- BLOCK ELEMENTS (SDG 8,9,11,14 &15)</u></p> <ul style="list-style-type: none"> • Understand, interpret and predict the occurrence electronic configuration trends in physical and chemical properties of transition metals • To demonstrate and explain the general trends in properties of first row transition metals that is the metallic nature ,ionization enthalpy, oxidation states ,color catalytic properties, magnetic properties ,interstitial compounds an alloy formation • Lanthanoids and Actinoids - to compare and understand the difference between their configuration, Oxidation states, lanthanide contraction and interpret its consequences 	<p><u>NOVEMBER</u></p> <p><u>COORDINATION COMPOUNDS (SDG 3&7)</u></p> <ul style="list-style-type: none"> • To define, compute and express coordination compounds ,O.S , C.N, ligands and study various types of ligands • To understand and predict the magnetic properties, shapes and IUPAC nomenclature of coordinate compounds • To understand and explain bonding using Werner's theory valence bond theory and crystal field theory in coordinate compounds
<p><u>DECEMBER</u></p> <p>Revision of the syllabus and completion of topics left from the previous month.</p> <p>Project work</p> <p>Practical Exam</p> <p><u>Pre board</u></p>	<p><u>JANUARY</u></p> <p><u>Pre board</u></p>

ASSESSMENT PLANNER

Periodic Test - 1 40 Marks	SYLLABUS ELECTROCHEMISTRY SOLUTIONS BASICS OF ORGANIC CHEMISTRY OF CLASS 11
Half Yearly Exam Theory / Prac 70/30 Total 100 Marks	SOLUTIONS ELECTROCHEMISTRY CHEMICAL KINETICS HALOALKANES AND HALOARENES ALCOHOLS, PHENOLS AND ETHER ORGANIC COMPOUNDS CONTAINING NITROGEN PRACTICALS TITRATION OF POTASSIUM PERMANGANATE AND MOHRS SALT TITRATION OF POTASSIUM PERMANGANATE AND OXALIC ACID ANALYSIS OF FOOD COMPONENTS IDENTIFICATION OF FUNCTIONAL GROUP CHROMATOGRAPHY
PRE BOARD – 1 & 2 Theory / Practicals 70/30 Total 100 Marks	SYLLABUS SOLUTIONS ELECTROCHEMISTRY HALOALKANES AND HALOARENES ALCOHOLS, PHENOLS AND ETHER ALDEHYDES, KETONES AND CARBOXYLIC ACIDS ORGANIC COMPOUNDS CONTAINING NITROGEN d AND f BLOCK ELEMENTS CHEMICAL KINETICS CO-ORDINATION CHEMISTRY BIOMOLECULES PRACTICAL TITRATION OF POTASSIUM PERMANGANATE AND MOHRS SALT TITRATION OF POTASSIUM PERMANGANATE AND OXALIC ACID ANALYSIS OF FOOD COMPONENTS IDENTIFICATION OF FUNCTIONAL GROUP CHROMATOGRAPHY INORGANIC SALT ANALYSIS

INFORMATICS PRACTICES

GENERAL LEARNING OUTCOMES

- Create Series, Data frames and apply various operations.
- Visualize data using relevant graphs.
- Design SQL queries using Aggregate functions.
- Import/Export data between SQL database and Pandas.
- Learn terminology related to networking and internet.
- Identify internet security issues and configure browser settings.
- Explain the impact of technology on society including gender and disability issues.

THE SUSTAINABLE DEVELOPMENT GOALS

- ✓ SDG 9: Build resilient infrastructure, promote sustainable and inclusive industrialization, and foster innovation
- ✓ SDG 10: Reduce inequality
- ✓ SDG 11: Make cities inclusive, safe, resilient and sustainable
- ✓ SDG 12: Sustainable consumption and production patterns
- ✓ SDG 13: Urgent action to combat climate change and its impacts
- ✓ SDG 14: Conserve and sustainably use oceans, seas and marine resources
- ✓ SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and biodiversity loss
- ✓ SDG 16: Peace, justice and strong institutions
- ✓ SDG 17: Strengthen the means of implementation and global partnerships for development

MAR-APRIL

DATA HANDLING USING PANDAS – I (DATA STRUCTURES, SERIES, DATAFRAMES)

LEARNING OUTCOMES

- Introduction to Python libraries- Pandas, Matplotlib.
- Data structures in Pandas - Series and Data Frames.
- Series: Creation of Series from – ndarray, dictionary, scalar value; mathematical operations; Head and Tail functions; Selection, Indexing and Slicing..

MAY

SOCIETAL IMPACTS

LEARNING OUTCOMES

- Understand the impact of technology on society, including gender and disability issues.
- Understand what is cybercrime and the need of Cyber Security
- Overview of Indian IT Act.
- E-waste: hazards and management.
- Awareness about health concerns related to the usage of technology.

JULY

DATA HANDLING USING PANDAS – II

LEARNING OUTCOMES

- Data Frames: creation - from dictionary of Series, list of dictionaries, Text/CSV files; display; iteration; Operations on rows and columns: add, select, delete, rename;
- Head and Tail functions; Indexing using Labels, Boolean Indexing;
- Importing/Exporting Data between MySQL database and Pandas

AUGUST

DATA VISUALIZATION

LEARNING OUTCOMES

- Purpose of plotting; drawing and saving following types of plots using Matplotlib – line plot, bar graph, histogram, piechart, frequency polygon, box plot and scatter plot.
- Customizing plots: color, style (dashed, dotted), width; adding label, title, and legend in plots

SEPTEMBER

DATABASE QUERY USING SQL

LEARNING OUTCOMES

- Learn how to retrieve and manipulate data from one or more tables.
- Learn how to filter data based upon multiple conditions.
- Update and insert data into the existing tables.
- Understand how the relationships between tables will affect the SQL

OCTOBER – NOVEMBER

INTRODUCTION TO COMPUTER NETWORKS

LEARNING OUTCOMES

- Introduction to networks, Types of network: LAN, MAN, WAN.
- Network Devices: modem, hub, switch, repeater, router, gateway
- Network Topologies: Star, Bus, Tree, Mesh
- Introduction to Internet, URL, WWW and its applications- Web, email, Chat, VoIP.
- Website: Introduction, difference between a website and webpage, static vs dynamic web page, web server and hosting of a website.
- Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.

ASSESSMENT PLANNER

Periodic Test PA - 1 40 Marks	SYLLABUS DATA HANDLING USING PANDAS – I SOCIETAL IMPACTS
Mid Term Exam Theory / Prac 70/30	SYLLABUS DATA HANDLING USING PANDAS - I SOCIETAL IMPACTS DATA HANDLING USING PANDAS - II DATA VISUALIZATION DATABASE QUERY USING SQL PRACTICALS ✓ PYTHON ✓ MYSQL ✓ PROJECT + PRACTICAL FILE
PRE BOARD – 1 & 2 Theory / Prac 70/30	SYLLABUS FULL SYLLABUS PRACTICALS ✓ PYTHON ✓ MYSQL

	✓ PROJECT + PRACTICAL FILE
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POLITICAL SCIENCE

APRIL

TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
<p>THE END OF BIPOLARITY NEW CENTRES OF POWER CONTEMPORARY SOUTH ASIA</p>	<ul style="list-style-type: none"> • The student will be familiarized with the factors that shaped contemporary politics. • They will understand the key events and developments that led to the disintegration of the USSR. • They will learn about American dominance in world politics and the rise of new centers of power. • The conditions prevalent in South Asia and the quest for democracy will be another aspect that they will become aware of. 	<p>At the completion of these topics the student should be able to:</p> <ul style="list-style-type: none"> • State and deduce the factors that led to American supremacy. • Develop the ability to use and analyze socio-economic and political factors that led to the disintegration of the USSR and its impact on world politics. • Investigate and interpret current events to draw conclusions about contemporary power struggles. • Explain major trends in the world today. • Analyze struggles today in the light of past events.

MAY

TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
<p>INTERNATIONAL ORGANIZATION SECURITY IN THE CONTEMPORARY WORLD</p>	<ul style="list-style-type: none"> • The student will discuss the major developments that gave rise to the formation of the UN. • Familiarize the learner with the composition of the UN and its functions. • Analyze reasons that necessitate the restructuring of the UN, keeping in mind the contemporary realities. • Understand the meaning of security and its importance in international relations 	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> • Identify developments that necessitate the existence of an international body. • Highlight the successes and failures of the UN. • Build arguments to further India's quest for a permanent seat in the UN. • Compare the modern and traditional notion of security

JULY

TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
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ENVIRONMENT AND NATURAL RESOURCES GLOBALIZATION	<ul style="list-style-type: none"> • The student will be familiarized with the importance of environmental concerns for human survival. • Discuss the environmental policy pursued by India and the North – South divide on this issue. • They will analyze movements both national and international that espouse the cause of environment. • They will learn about the process of globalization, and its political, economic, and cultural consequences. 	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> • Analyze the significance of environmental issues. • Examine the approach of the North and the South on these issues. • Identify features of globalization and its impact on our daily lives. • Analyze the impact of environment and globalization on the politics of the world.
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AUGUST

TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
CHALLENGES OF NATION-BUILDING ERA OF ONE-PARTY DOMINANCE	<ul style="list-style-type: none"> • The student will be familiarized with the challenges the country faced post Partition. • Learn about the party system prevalent in India in the first few decades after Independence. • Discuss the reasons for the dominance of the Indian National Congress. 	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> • Identify the challenges India faced after it became free. • Trace the difficulties the country faced in the process of integration and highlight the role played by Sardar Vallabhbhai Patel. • Analyze the reasons why the INC exercised dominance up to 1967. • Comprehend the change that took place when Mrs. Gandhi took up the leadership of the INC.

SEPTEMBER

TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
CHALLENGES TO AND RESTORATION OF THE CONGRESS SYSTEM THE CRISIS OF THE DEMOCRATIC ORDER RECENT DEVELOPMENTS IN INDIAN POLITICS	<ul style="list-style-type: none"> • The student will be able to trace the electoral history of India since 1967. • They will learn about Jaya Prakash Narayan, Ram Manohar Lohia and Pandit Deen Dayal Upadhyaya's contribution to Indian politics. • Explore the period of Emergency and its aftermath. 	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> • Discover the role played by leaders in democratic resurgence and National Emergency. • Appreciate the participation of a wide variety of people in the democratic process. • Analyze the different trends that eventually gave rise to alliance politics. • Develop their capacity to link political processes and policies with contemporary realities. • Encourage the students to understand and analyze the challenges of contemporary India.

OCTOBER

TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
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REGIONAL ASPIRATIONS	<ul style="list-style-type: none"> • The student will explore the significant elements of the regional struggles in post independent India. • Discuss the types of conflicts prevalent in Northeast India. • Learn in detail about the Kashmir issue. 	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> • Analyze the causes, events, and phases of regional struggles. • Evaluate the impact of these conflicts on integration. • Explore solutions to these problems
NOVEMBER		
TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
INDIAN FOREIGN POLICY PLANNED DEVELOPMENT	<p>The student will be familiarized with the processes of framing the Indian foreign policy.</p> <ul style="list-style-type: none"> • Understand the different issues that affect India's relationship with the different countries of the world. • Learn about the changing nature of India's economic development 	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> • Recount some aspects of the history leading to the framing of the foreign policy. • Analyze the impact of contemporary developments on India's foreign policy. • Evaluate the changing nature of economic development in India.
DECEMBER		
TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
REVISION PROJECT WORK	<p>Final touches will be given to project work. Doubts on entire syllabus will be cleared in class.</p>	<p>At the completion of the syllabus, the student should be able to:</p> <ul style="list-style-type: none"> • Understand and analyze contemporary politics. • Form individual opinions on the topics studied with the help of perspectives provided by magazines and newspapers. • Compare developments in different situations and appreciate the role played by figures and their working in post-independent India. • Encourage students to understand and analyze the challenges for contemporary India.

SYLLABUS PLANNER 2024-2025

BROAD COMPETENCIES AND OUTCOME

CONTEMPORARY WORLD POLITICS:

COMPETENCY: Understanding, analyzing the contemporary world politics.

OUTCOMES: The students will be able to:

Understand the contemporary world.

Understand the key political events and processes in the post-Cold War era.

Analyze various global institutions, processes and events shaping their lives,

POLITICS IN INDIA AFTER INDEPENDENCE

COMPETENCY: Critically evaluate and understand, analyze politics in India after Independence.

OUTCOMES: The students will be able to:

Understand and analyze constitutional institutions, figures and their working in the post-Independence period, political events, trends, other facts and figures and contribution of eminent personalities from the post-Independence to contemporary period.

Develop the capacity to link political policies and processes with contemporary realities.

Encourage the students to understand and analyze the challenges faced by contemporary India.

APRIL

1. THE END OF BIPOLARITY
2. NEW CENTRES OF POWER
3. CONTEMPORARY SOUTH ASIA

MAY

1. UNITED NATIONS AND ITS ORGANIZATIONS
2. SECURITY IN CONTEMPORARY WORLD

JULY

1. ENVIRONMENT AND NATURAL RESOURCES
2. GLOBALIZATION

AUGUST

1. CHALLENGES OF NATION BUILDING
2. ERA OF ONE-PARTY DOMINANCE
3. CHALLENGES TO AND RESTORATION OF THE CONGRESS SYSTEM

SEPTEMBER

1. THE CRISIS OF THE DEMOCRATIC ORDER
2. RECENT DEVELOPMENTS IN INDIAN POLITICS

OCTOBER

1. REGIONAL ASPIRATIONS

NOVEMBER

1. INDIAN FOREIGN POLICY
2. PLANNED DEVELOPMENT

DECEMBER

REVISION

ASSESSMENT PLANNER

PERIODIC TEST - 1 40 MARKS	<u>SYLLABUS</u> 1. THE END OF BIPOLARITY 2. NEW CENTRES OF POWER
HALF YEALY EXAM THEORY / PRAC 80/20 OR THEORY 100 MARKS	<u>SYLLABUS</u> BOOK I CONTEMPORARY WORLD POLITICS
PRE- BOARD – 1 & 2 THEORY / PRAC 80/20 OR THEORY 100 MARKS	<u>SYLLABUS</u> BOOK I CONTEMPORARY WORLD POLITICS BOOK II IPOLITICS IN INDIA SINCE INDEPENDENCE

HISTORY

APRIL		
TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
BRICKS, BEADS AND BONES KINGS, FARMERS AND TOWNS KINSHIP, CASTE, AND CLASS	<p>The student will be familiarized with the nature of early urban centers as economic and social institutions.</p> <p>Introduce the ways in which new data can lead to a revision of existing notions of history.</p> <p>They will become aware of the major trends in the political and economic history of the subcontinent.</p> <p>Introduced to inscriptional analysis and the ways in which these have shaped the understanding of political and economic processes.</p> <p>They will become familiar with issues in social history and be introduced to the strategies of textual analysis and their use by reconstructing social history.</p>	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> • State and deduce the multilateral aspects of Harappan civilization to understand the first civilization of the world. • Develop the ability to use and analyze socio-economic and political aspects of Harappa. • Investigate and interpret historical and contemporary sources and viewpoints of ASI and historians of Harappa. • Explain major trends in the 6th century BCE to understand the ways in which these have shaped the understanding of political and economic processes. • Analyze social norms to understand the perspectives of society given in the scriptures of ancient India.
MAY		
TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
THINKERS, BELIEFS AND BUILDINGS THROUGH THE EYES OF THE TRAVELLERS	<p>The student will discuss the major religious developments in early India.</p> <p>Introduce strategies of visual analysis and their use in reconstructing the theories of religion.</p> <p>Familiarize the learner with the salient features of social histories described by travelers and discuss how these can be used as sources of social history.</p>	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> • Compare the different religious facets to understand the religious developments in ancient India. • Identify the accounts of travelers to understand the social, cultural, political and economic life of the people during the rule of different kings in the medieval period. • Compare the perspectives of travelers.
JULY		
TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
BHAKTI AND SUFI TRADITIONS AN IMPERIAL CAPITAL – VIJAYNAGAR	<p>The student will be familiarized with the religious developments.</p> <p>Discuss ways of analyzing devotional literature as sources of history.</p> <p>They will learn about the buildings built during the Vijayanagar rule and discuss the way in which monuments can help us to reconstruct history.</p>	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> • Analyze the philosophies of different Bhakti and Sufi saints to understand religious development in the medieval period. • Examine the impact of the movements to bring about harmony. • Identify features of architecture in the South. • Analyze accounts of foreign travelers to reconstruct the Vijayanagar period in Indian history.

AUGUST		
TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
PEASANTS, ZAMINDARS AND THE STATE COLONIALISM AND THE COUNTRYSIDE	<p>The student will be familiarized with developments in agrarian relations.</p> <p>Discuss whether state formation is possible in nomadic societies.</p> <p>The student will discuss how colonialism affected zamindars, peasants and artisans.</p> <p>Comprehend the problems and limits of using official sources for understanding the lives of people.</p>	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> Identify the facets of agrarian developments to understand the relationship between the state and agriculture during the Mughal period. Trace the changes in agriculture in the 16th and 17th centuries. Analyze the colonial official records to understand the divergent interests of British and Indians. Comprehend the revenue systems introduced by the British to analyze the economic aspects of colonization in India.
SEPTEMBER		
TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
REBELS AND THE RAJ	<p>The student will be able to discuss how the events of 1857 are being interpreted.</p> <p>Show how visual material can be used by historians.</p>	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> Corelate the planning and coordination of the rebels of 1857 to infer its domains and nature. Analyze how revolt created a vision of unity among the Indians.
OCTOBER		
TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
MAHATMA GANDHI AND THE NATIONALIST MOVEMENT	<p>The student will explore the significant elements of the Nationalist Movement.</p> <p>Discuss how Gandhi was perceived by different groups.</p> <p>Analyzing newspapers, diaries and letters served as invaluable resource to interpret history to draw inferences.</p>	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> Analyze the causes, events, and phases of the freedom struggle. Evaluate Gandhiji's contribution to the mass movement. Infer from newspapers, letters and diaries aspects of the struggle
NOVEMBER		
TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES
FRAMING THE CONSTITUTION	<p>The student will be familiarized with the processes of framing the Indian Constitution.</p> <p>Understand the way historians interpret debates and discussions.</p>	<p>At the completion of this chapter the student should be able to:</p> <ul style="list-style-type: none"> Recount some aspects of the history leading to the framing of the Constitution. Analyze the role played by debate and discussion in the framing of the Constitution. To analyze the role played by the Constituent Assembly.
DECEMBER		
TOPIC	LEARNING OBJECTIVES	LEARNING OUTCOMES

REVISION PROJECT WORK	Final touches will be given to project work. Doubts on entire syllabus will be cleared in class.	The student should be able to: <ul data-bbox="863 174 1398 524" style="list-style-type: none">• Understand how historical knowledge develops.• Form individual opinions on the topics studied with the help of perspectives provided by historians.• Compare developments in different situations.• Appreciate the role played by historians in reconstructing the past with various sources.
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SYLLABUS PLANNER 2024-2025

<u>APRIL</u> 1. BRICKS, BEADS AND BONES 2. KINGS, FARMERS AND TOWNS 3. KINSHIP, CASTE AND CLASS	<u>MAY</u> 1. <u>THINKERS, BELIEFS AND BUILDINGS</u> 2. <u>THROUGH THE EYES OF TRAVELLERS</u>
<u>JULY</u> 1. BHAKTI – SUFI TRADITIONS 2. AN IMPERIAL CAPITAL – VIJAYNAGAR	<u>AUGUST</u> 1. PEASANTS, ZAMINDARS AND THE STATE 2. COLONIALISM AND THE COUNTRYSIDE
<u>SEPTEMBER</u> 1. REBELS AND THE RAJ	<u>OCTOBER</u> 1. MAHATMA GANDHI AND THE NATIONALIST MOVEMENT
<u>NOVEMBER</u> 1. FRAMING THE CONSTITUTION	<u>DECEMBER</u> REVISION

ASSESSMENT PLANNER

PERIODIC TEST - 1 40 MARKS	<u>SYLLABUS</u> 1. BRICKS, BEADS AND BONES 2. KINGS, FARMERS AND TOWNS
HALF YEALY EXAM THEORY / PRAC 80/20 100 MARKS	<u>SYLLABUS</u> BOOK I: THEMES IN INDIAN HISTORY PART I BOOK II: THEMES IN INDIAN HISTORY PART II

**PRE- BOARD – 1 &
2**

**THEORY / PRAC
80/20
100 MARKS**

SYLLABUS

**BOOK I: THEMES IN INDIAN HISTORY PART I
BOOK II: THEMES IN INDIAN HISTORY PART II
BOOK III: THEMES IN INDIAN HISTORY PART III**

PHYSICAL EDUCATION

THE SUSTAINABLE DEVELOPMENT GOALS

- ✓ SDG 4. Quality Education
- ✓ SDG 5. Gender Equality
- ✓ SDG 8. Decent Work and Economic Growth
- ✓ SDG 10. Reduced Inequalities
- ✓ SDG 11. Sustainable Cities and Communities
- ✓ SDG 12. Responsible Consumption and Production
- ✓ SDG 13. Climate Action
- ✓ SDG 16. Peace, Justice, and Strong Institutions
- ✓ SDG 17. Partnership for the Goals

THROUGHOUT THE YEAR WITH PRACTICALS DURING PT PERIODS

MAR-APRIL

UNIT 1: MANAGEMENT OF SPORTING EVENTS

LEARNING OUTCOMES

- Describe the concept of planning in sports.
- Classify the committees and its responsibilities in sports event.
- Differentiate the different type of tournament.
- Prepare fixtures of knock out and league.
- Distinguish between Intramural and Extramural tournaments.

MAY

UNIT 2: CHILDREN AND WOMEN IN SPORTS

LEARNING OUTCOMES

- Understand the concept of motor development and factors affecting it.
- Discuss exercise guidelines for different stages of growth and development.
- Classify common postural deformities and identify corrective measures.
- Recognize the role and importance of sports participation of women in India.
- Identify special consideration relate to menarche and menstrual dysfunction.
- Express female athlete triad according to eating disorders.

JULY

UNIT 3: YOGA AND LIFESTYLE

LEARNING OUTCOMES

- Identify the asanas beneficial for different types of ailments and health problems.
- Recognize the importance of various asanas for preventive measures of obesity, diabetes, asthma, hypertension, back pain.
- Describe the procedure for performing variety of asanas for maximal benefits.
- Distinguish the contraindications associated with performing of different asanas.
- Outline the role of yogic management for various health benefits and preventive measures.

AUGUST

UNIT 4: PHYSICAL EDUCATION AND SPORTS FOR CWSN

LEARNING OUTCOMES

- Describe the concept of Disability and Disorder.
- Outline types of disability and describe its causes and nature.
- Outline types of disorder and describe its causes and nature.
- Explain various disability etiquettes.
- List the advantages of physical activities for children with special needs.
- Explain Strategies to make physical activities accessible for children with special needs.

SEPTEMBER

UNIT 5: SPORTS AND NUTRITION

LEARNING OUTCOMES

- Understand the concept of balanced diet and nutrition.
- Classify Nutritive and Non-Nutritive components of Diet.
- Identify and classify Macro and Micro Nutrients, their food sources and their functions.
- Identify the ways to maintain healthy weight.
- Discover and Point out foods commonly causing food intolerance.
- Recognize the pitfalls of dieting.
- Breakdown and Assess common Food myths.

SEPTEMBER

UNIT 6: TEST AND MEASUREMENT IN SPORTS

LEARNING OUTCOMES

- Perform 50 M Standing Start, 600 M Run/ Walk, sit and Reach, Partial Curl Up, Push Ups (Boys), Modified Push Ups (Girls), Standing Broad Jump, Agility – 4x 10 M Shuttle Run.
- Demonstrate Barrow three item general motor ability test.
- Compute BMR
- Compute physical fitness Index through Harvard Step Test/Rockport Test.
- Describe the procedure of Rikli and Jones - Senior Citizen Fitness Test.

OCTOBER

UNIT 7: PHYSIOLOGY AND INJURIES IN SPORTS

LEARNING OUTCOMES

- Recognize the physiological factors determining the components of physical fitness.
- Comprehend the effects of exercise on Muscular and Cardio respiratory system.
- Know the effects of exercise on cardio respiratory system.
- Figure out the physiological changes due to ageing.
- Identify and classify sports injuries.
- Recognize and demonstrate the aims and objectives of First Aid.

OCTOBER

UNIT 8: BIOMECHANICS AND SPORTS

LEARNING OUTCOMES

- Recognize the concept of sports biomechanics.
- Know the importance of biomechanics in sports.
- Classify the various types of movements (such as flexion, extension, abduction and adduction) as well as know the forces involved in it.
- Define Newton's laws of Motion and identify their applicability in sports.

- Define friction and its usage in sports.

NOVEMBER

UNIT 9: PSYCHOLOGY AND SPORTS

- Classify different types of personality and its relationship with sport performance.
- Recognize concept of motivation and Identify various types of motivation.
- Illustrate various strategies of motivation used in sports.
- Illustrate various reasons to exercise and its associated benefits.
- Identify strategies for promoting exercise adherence.
- Differentiate types of aggression in sports.

UNIT 10: TRAINING IN SPORTS

- Understand the concept of Talent identification and development in sports.
- Classify Isometric, Isotonic and Isokinetic training.
- Understand different methods of endurance development.
- Differentiate various methods to improve flexibility.
- Explain Coordinative Abilities.
- Describe Circuit Training.

ASSESSMENT PLANNER

Periodic Test PA - 1 40 Marks	SYLLABUS UNIT 1: MANAGEMENT OF SPORTING EVENTS UNIT 2: CHILDREN AND WOMEN IN SPORTS
Mid Term Exam Theory / Prac 70/30	SYLLABUS UNIT 1: MANAGEMENT OF SPORTING EVENTS UNIT 2: CHILDREN AND WOMEN IN SPORTS UNIT 3: YOGA AND LIFESTYLE UNIT 4: PHYSICAL EDUCATION AND SPORTS FOR CWSN UNIT 5: SPORTS AND NUTRITION UNIT 6: TEST AND MEASUREMENT IN SPORTS
PRE BOARD – 1 & 2 Theory / Prac 70/30	SYLLABUS FULL SYLLABUS

BIOLOGY

MARCH/APRIL

UNIT – VI

Chapter-2: Sexual Reproduction in Flowering Plants

Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; outbreeding devices; pollen-pistil interaction; double fertilization; post fertilization events - development of endosperm and embryo, development of seed and formation of fruit; special modes- apomixis, parthenocarpy, polyembryony; Significance of seed dispersal and fruit formation.

LEARNING OUTCOMES / COMPETENCIES:

Students will be able to:

1. Draw & label the parts of a L. S section of flower.
 2. Elaborate on the structure of stamen & pollen grains.
 3. List the importance of Tapetum.
 4. Analyze the mechanism of Microsporogenesis.
 5. Draw & Label parts of pistil.
 6. Elaborate on types of ovules found in plants.
 7. Analyze the structure of Megasporangium.
 8. Explain the formation of Embryo Sac with diagrams.
 9. Define Pollination.
 10. Explain types of Pollination involved in plants.
 11. Elaborate the adaptations of plants which are pollinated by different agents.
 12. Define various outbreeding devices used by plants to prevent self-pollination.
 13. Elaborate about pollen pistil compatibility interactions.
 14. Explain double fertilization process in plants.
 15. Analyze the new plant breeding technique for Artificial Hybridisation.
officially.
 16. Draw & Explain the formation of Endosperm, Embryo & Seed.
- XVII) Understand & Elaborate the process of Apomixis & Polyembryony.

APRIL - MAY

Chapter-3: Human Reproduction

Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis - spermatogenesis and oogenesis; menstrual cycle; fertilization, embryo development up to blastocyst formation, implantation; pregnancy and placenta formation (elementary idea); parturition (elementary idea); lactation (elementary idea).

LEARNING OUTCOMES / COMPETENCIES:

Students will be able to: -

1. Draw & Explain parts of Male Reproductive System.
2. List functions of Accessory ducts & glands in male reproductive system.
- 3 Define testis, Epididymis, vas deferens, vasa efferentia, Rete testis.
4. Define Gametogenesis.
5. Explain the process of Spermatogenesis.
6. Analyze & Interpret the Hormonal Control of Spermatogenesis.
7. Draw & label the structure of a sperm.
8. Explain the process of Oogenesis.
9. Explain the structure of Ovum in detail.
10. Understand & Analyze Menstrual Cycle and it's different phases.
11. Interpret & List the sequences of Hormonal Control of Menstrual Cycle.
12. Understand & Interpret various steps of FERTILIZATION.
13. Analyze various cortical Reactions to the entry of the sperms.
14. List the significance of Fertilization.
15. Understand the process of IMPLANTATION & Cleavage.
16. Analyze the process of EMBRYONIC DEVELOPMENT in mothers.
17. Define Parturition & Lactation.
18. Analyze & Interpret the mechanism of Parturition.
19. List the importance of Colostrum In mothers' milk.

MAY-JULY

Chapter-4: Reproductive Health

Need for reproductive health and prevention of Sexually Transmitted Diseases (STDs); birth control - need and methods, contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies - IVF, ZIFT, GIFT (elementary idea for general awareness).

LEARNING OUTCOMES / COMPETENCIES:

Students will be able to: -

1. Define Reproductive Health & Contraception.
2. Illustrated the problems & strategies to control Population Explosions.
3. Analyze the various types of Contraceptives Used.
4. Differentiate between vasectomy & Tubectomy.
5. List the conditions for Medical Termination of Pregnancies. (MTP)
6. Analyze mode of transmission, causal organism & symptoms of Sexually Transmitted diseases.
7. Define & Understand the mechanism of Infertility.
8. Analyze the different Assisted Reproductive Techniques used for treating INFERTILITY.

JULY

Chapter-10: Microbes in Human Welfare

Microbes in food processing, industrial production, sewage treatment, energy generation and microbes as bio-control agents and bio-fertilizers. Antibiotics; production and judicious use.

LEARNING OUTCOMES / COMPETENCIES:

Students will be able to: -

1. Understand the usage of microbes in food industry.
2. Interpret the importance of microbes in sewage treatment plant
3. Understand the role of microbes as: BIO-CONTROL AGENT
4. Analyze the role of microbes in ANTIBIOTICS production.

Chapter-8: Human Health and Diseases

Pathogens; parasites causing human diseases (malaria, dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse.

LEARNING OUTCOMES / COMPETENCIES:

Students will be able to:

1. Define Health & Diseases.
2. Differentiate b/w Infectious & Non Infectious Diseases.
3. Analyse & Interpretation various Causal Organism of common Human diseases,
 - a. It's Symptoms & Mode of Treatment.
4. Define Immunity
5. Classify Immunity.
 - b. 6. Explain the mechanism of NATURAL & ACQUIRED Immunity.
6. Differentiate between ACTIVE & PASSIVE IMMUNITY.
7. Understand & Analyse the various response our immune system develops to any invasion of pathogen.
8. Draw & Label the Structure of ANTIBODY.
9. List various types of Antibodies formed in our body.
10. Define Allergy.
11. List the major Allergens.
12. Enumerate the Mechanism involved in our Immune system to cause Allergy.
13. State the Treatment given for Allergy.
14. Define Autoimmunity.
15. Analyse the various types of Autoimmune diseases caused in Human body.
16. Understand its basic cause, symptoms & treatment involved in it .
17. Understand how it is different from ALLERGY.
18. Understand & list the various organs that play a role in IMMUNE SYSTEM of our body.
19. Analyse the mechanism of how each work & what kind of responses are generated by our body
20. Elaborate on AIDS , it's causal organism , spread & cure .
21. Analyse the mechanism of how CANCER is caused , its cure & its treatment .
22. Understand & Analyse the various composition & structures of Drugs used by Adolescent .
23. Interprets the preventive methodology of abuse of DRUGS

AUGUST

Unit-VII Genetics and Evolution

Chapter-5: Principles of Inheritance and Variation Heredity and variation: Mendelian inheritance; deviations from Mendelism – incomplete dominance, co-dominance, multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance; chromosome theory of inheritance; chromosomes and genes; Sex determination - in human being, birds and honey bee; linkage and crossing over; sex linked inheritance - haemophilia, colour blindness; Mendelian disorders in humans -thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.

LEARNING OUTCOMES / COMPETENCIES:

Students will be able to :

- I) Define various important terms used in GENETICS.
- II) Understand the mechanism used by Gregor Mendel.
- III) Analyse why he is called the “Father of Genetics”
- IV) Interpret his experiment, observation & inference given by him.
- V) State the laws of Inheritance.
- VI) Explain the law of Inheritance with examples in MONOHYBRID CROSS & DIHYBRID CROSSES.
- VII) Explain the Incomplete Dominance with the help of cross
- VIII) Explain the Co dominance state with the help of cross.
- IX) Analyze why these do not follow LAW OF DOMINANCE & LAW OF SEGREGATION.
- X) Understand the Gene interactions as in Mono gene , Multiple gene in the Chromosomes .
- XI) Define & Explain the process of Epistasis.
- XII) Explain the Pleiotropic Effect of gene.
- XIII) Define & Explain Polygenic Inheritance in Plants & Animals .
- XIV) Interpret - why Mendel’s work was not recognized earlier in 18 th century.
- XV) Explain what was the contribution of Sutton & Boveri in understanding the pattern of Inheritance.
- XVI) Analyze the similarities in between Mendel’s work & Chromosomal Theory of Inheritance.
- XVII) Describe Morgon’s work in the field of Genetics.
- XVIII) Analyze through the crosses the sex-linked genes to an eye color of Drosophila.
- XIX) State the reason for Morgon to work only on Drosophila melanogaster.
- XX) Define linkage, crossing over & recombinants.
- XXI) Explain how the concept of Linkage was given by Morgon .
- XXII) Differentiate between Complete & Incomplete Linkages.
- XXIII) Define & Calculate the Gene map of a chromosomes.
- XXIV) Understand the relation between map units & recombinant frequencies.
- XXV) Define linkage, crossing over & recombinants.
- XXVI) Explain how the concept of Linkage was given by Morgon .
- XXVII) Differentiate between Complete & Incomplete Linkages.
- XXVIII) Define & Calculate the Gene map of a chromosomes.
- XXIX) Understand the relation between map units & recombinant frequencies.
- XXX) Define Mutation.
- XXXI) Classify the types of Mutation based on change in Genotypes & Phenotypes.
- XXXII) Interpret & Define Pedigree Analysis.
- XXXIII) Elaborate on Mendelian Disease: Hemophilia (causes, symptoms & cure) in detail along with crosses.

XXXI) Elaborate on Mendelian Disease: Sickle cell Anaemia & phenylketonuria (causes, symptoms & cure) in detail

XXXII) Elaborate on Colour Blindness (causes, symptoms & cure) in detail along with crosses.

XXXIII) Elaborate on DOWN SYNDROME, TURNER SYNDROME & KLINE FELTER'S SYNDROME (causes, symptoms & cure) in detail along with crosses.

Chapter-6: Molecular Basis of Inheritance

Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central Dogma; transcription, genetic code, translation; gene expression and regulation - lac operon; Genome, Human and rice genome projects; DNA fingerprinting.

LEARNING OUTCOMES / COMPETENCIES:

Students will be able to :-

1. Differentiate b/w DNA & RNA
2. Elaborate on Chargaff's rule .
3. Discuss & prove the Genetic material by series of experiments .
4. Understand how the DNA is packed inside the chromosomes .
5. Explain the transcription , translation & elongation mode of proteins in our body .
6. Explain the expression & gene regulation .
7. Understand & analyze Human Genome / Rice Genome projects .
8. Explain the procedure of DNA FINGERPRINTING

SEPTEMBER

Chapter-7: Evolution

Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences); adaptive radiation; Biological evolution: Lamarck's theory of use and disuse of organs, Darwin's theory of evolution; mechanism of evolution - variation (mutation and recombination) and natural selection with examples, types of natural selection; Gene flow and genetic drift; Hardy - Weinberg's principle; brief account of evolution; human evolution.

LEARNING OUTCOMES / COMPETENCIES:

1. Study the various theories put forward by different scientist / evolutionist for Origin of life on Earth.
2. Define & explain with examples how Adaptive Radiation is observed in organism.
3. Compare the Lamarck's Theory with Darwin's Theory of Evolution.
4. Explain Natural selection, Speciation process
5. Explain the hardy -Weinberg's principle to explain various types of natural selection.
6. Elaborate on the human evolution in detail.

Unit-IX Biotechnology and its Applications

Chapter-11: Biotechnology - Principles and Processes

Genetic Engineering (Recombinant DNA Technology).

LEARNING OUTCOMES / COMPETENCIES:

Students will be able to: _

1. Understand the mechanism of Recombinant DNA Technology.
2. Analyze the various tools used to for creating recombinant DNA.

OCTOBER

Chapter-12: Biotechnology and its Application.

Application of biotechnology in health and agriculture: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms - Bt crops; transgenic animals; biosafety issues, biopiracy and patents.

LEARNING OUTCOMES / COMPETENCIES:

Students will be able to: -

1. Apply the knowledge of various biotech technology in HEALTH & AGRICULTURE market.
2. Understand the process of creating Artificial Human insulin chains.
3. Analyze how Biotechnology processes can be used in Vaccine production.
4. Interpret the various issues like GENE THERAPY, GMO ORGANISMS, BISAFTY ISSUES, BIOPIRACY & PATENT related issues in GENERAL

Unit-X Ecology and Environment

Chapter-13: Organisms and Populations.

Organisms and environment: Habitat and niche, population and ecological adaptations; population interactions - mutualism, competition, predation, parasitism; population attributes - growth, birth rate and death rate, age distribution.

LEARNING OUTCOMES / COMPETENCIES:

Students will be able to: -

1. Define Niche, Habitat, population, community, Biomes, Ecosystem.
2. Understand & explain the various population interactions observed on our planet.
3. Explain how populations attributes, like birth rate, death rate , age distribution affects the POPULATION in AN AREA.

NOVEMBER

Chapter-14: Ecosystem

Ecosystem: structure and function; productivity and decomposition; energy flow; pyramids of number, biomass, energy; nutrient cycles (carbon and phosphorous); ecological succession; ecological services - carbon fixation, pollination, seed dispersal, oxygen release (in brief).

LEARNING OUTCOMES / COMPETENCIES:

1. Define Ecosystem .
2. State the structure & function of various types of Ecosystem
3. Explain the 10% Law of Energy transfer in the ecosystem in different foodchain.
4. Elaborate the Ecological succession .
5. List & comment on the important ecological services provided by different processes in the Ecosystem.

Chapter-15: Biodiversity and its Conservation

Biodiversity - Concept, patterns, importance; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, Sacred Groves, biosphere reserves, national parks, wildlife, sanctuaries and Ramsar sites.

LEARNING OUTCOMES / COMPETENCIES:

Students will be able to: -

1. Define biodiversity.
2. Elaborate on the causes for the loss of biodiversity in a region.
3. Explain what are Hotspots, Red Data book, Sacred Groves.
4. Differentiate between Biosphere Reserves, national park, wild life sanctuaries.
5. Explain the famous Ramsar sites used as an example for conservation for biodiversity

REVISION OF BOARD PAPERS AFTER ALL THIS (IF TIME PERMITS)

ASSESSMENT PLANNER

PA 1 SYLLABUS

40 MARKS

- SEXUAL REPRODUCTION IN FLOWERING PLANTS
- HUMAN REPRODUCTION
- REPRODUCTIVE HEALTH

SA1/ HALF

* PA 1 SYLLABUS +YEARLY EXAMS CHAPTERS GIVEN BELOW

THEORY / PRACTICAL 70/30

- * MICROBES IN HUMAN WELFARE
- * HUMAN HEALTH & DISEASES
- * PRINCIPLES OF INHERITANCE & VARIATION

- * EVOLUTION
- * MOLECULAR BASIS OF INHERITANCE
- * BIOTECHNOLOGY: PRINCIPLES & PROCESSES

PRE-BOARD 1 & 2 HALF YEARLY SYLLABUS + THE BELOW GIVEN CHAPTERS.
THEORY / PRAC 70/30

- * BIOTECHNOLOGY & ITS APPLICATION
- * ORGANISM & POPULATIONS
- * ECOSYSTEM
- * BIODIVERSITY & CONSERVATION

ANY CHANGES IN THE SYALLBUS FROM CBSE WILL BE NOTIFIED TO THE STUDENTS DIRECTLY.

PSYCHOLOGY (037)

General Learning Outcomes

- Psychology as a discipline specializes in the study of experiences, behaviors, and mental processes of human beings.
- The students will be able to learn about different methods used in Psychology like observation, interview, psychological testing and case study method to understand and describe human behavior.
- The students will be able to describe the role of socio-cultural factors responsible for human behavior
- The students will be able to be more sensitive, perceptive, socially aware while analyzing the human behavior in their daily life experiences.

Month	Topic	Sub Topics	Learning Outcomes
March & April	Unit I : Variations in Psychological Attributes	1) Introduction 2. Individual Differences in Human Functioning 3. Assessment of Psychological Attributes 4. Intelligence 5. Theories of Intelligence: a) Psychometric Theories of Intelligence, b) Information Processing Theories 6) Individual Differences in Intelligence 7. Culture and Intelligence 8. Emotional Intelligence 9. Special Abilities: Aptitude: Nature and Measurement 10 .Creativity	The students will be able to- 1) Explain various psychological attributes on which people differ from each other. 2) classify different methods of assessment 3) explain various theories of intelligence. 4) identify symptoms of differently abled persons. 6) classify intelligence in different cultures. 7) Differentiate between intelligence and aptitude.
	Psychology Practical -1		

		Assessment of an Intelligence test.	The students will be able to learn to administer, interpret the results and writing the report of a fellow student.
May	CHAPTER-3: MEETING LIFE CHALLENGES	1)Introduction 2) Nature, Types and Sources of Stress. 3) Effects of Stress on Psychological Functioning & Health. 4) Coping with Stress Stress Management Techniques 5) Promoting Positive Health and Well-being.	The students will be able to- 1. Describe the nature, types and sources of stress as life challenges. 2. Examine the effects of stress on psychological functioning. 3. Illustrate ways to cope with stress. 4. Apply life skills that help people to stay healthy. 5. Explain the factors that promote positive health and well-being.
	Psychology Practical -2	Assessment of an Anxiety Test.	The students will be able to learn to administer, interpret the results and writing the report of a fellow student.
July	CHAPTER - 2 : Self And Personality	1. Concept of Self 2. Cognitive and Behavioural Aspects of Self 3. Culture and Self 4. Concept of Personality 5.. Major Approaches to the Study of Personality – ● Type Approach ● Trait Approach ● Psychodynamic Approach ● Behavioural Approach ● Cultural Approach ● Humanistic Approach. 6)Assessment of Personality ● Self-report	The students will be able to - describe the concept of self and learn some ways for self-regulation of behavior. 2) explain the concept of personality, 3)differentiate between various approaches to the study of personality 4)develop insight into the development of a healthy personality 5) some techniques for personality assessment.

	<p>Chapter – 4 : Psychological Disorders</p> <p>Psychology Practical -3</p>	<p>Measures</p> <ul style="list-style-type: none"> • Projective Techniques • Behavioural Analysis. <p>1) Concepts of Abnormality and Psychological Disorders</p> <p>2) Classification of Psychological Disorders.</p> <p>3) Factors Underlying Abnormal behavior.</p> <p>Assessment of a Personality Test</p>	<p>The students will be able to -</p> <ol style="list-style-type: none"> 1. State the basic issues in abnormal behavior. 2) The students will be able to explain the criteria used to identify such behaviours. 3) The students will be able to illustrate the factors which causes abnormal behavior. <p>The students will be able to learn to administer, interpret the results and writing the report of a fellow student.</p>
August	Chapter – 4 : Psychological Disorders	<p>➤ Major Psychological Disorders</p> <ul style="list-style-type: none"> • Anxiety Disorders • Obsessive-Compulsive and Related Disorders. • Trauma-and Stressor-Related Disorders. • Somatic Symptom and Related Disorders. • Dissociative Disorders. • Depressive Disorder • Bipolar and Related Disorders • Schizophrenia Spectrum and Other Psychotic Disorders. • Neurodevelopmental Disorders • Disruptive, Impulse-Control and 	<p>The students will be able to -</p> <ol style="list-style-type: none"> 1) The students will be able to explain the different models of abnormal behaviour . 2) The students will be able to describe the symptoms of major psychological disorders.

	Chapter – 5 : Therapeutic Approaches	<p>Conduct Disorders.</p> <ul style="list-style-type: none"> • Feeding and Eating Disorders • Substance Related and Addictive Disorders. <p>Nature and Process of Psychotherapy. Types of Therapies -</p> <ul style="list-style-type: none"> • Psychodynamic Therapy • Behaviour Therapy • Cognitive Therapy • Humanistic-Existential Therapy • Biomedical Therapy <p>Rehabilitation of the Mentally ill.</p>	<p>1)The students will be able to illustrate with the basic nature and process of psychotherapy.</p> <p>2) The students will be able to explain different types of therapies for helping people.</p> <p>3) The students will be able to describe the use of psychological forms of intervention.</p> <p>4) The students will be able to classify how people with mental disorders can be rehabilitated.</p>
September-		Mid Term Examination	
October	Chapter : 6 - Attitude And Social Cognition	<p>1)Explaining Social Behaviour</p> <p>2) Nature and Components of Attitudes</p> <p>3) Attitude Formation and Change</p> <p>4) Prejudice and Discrimination</p> <p>5) Strategies for Handling Prejudice</p> <p>6) Social Cognition</p> <p>7) Schemas and Stereotypes</p>	<p>1) The students will be able to understand what are attitudes, how they are formed and changed.</p> <p>2) The students will be able to analyse how people interpret and explain the behaviour of others</p> <p>3) The students will be able to describe how the presence of others influences our behavior.</p>
	Psychology Practical - 4	Assessment of Self Concept of a person.	The students will be able to learn to administer, interpret

	Psychology Practical -5	Assessment of a Psychological Test	the results and report writing of a fellow student.
November	Chapter:7 - Social Influence And Group Processes Working On Case Study File	1) Nature and Formation of Groups 2) Type of Groups 3) Influence of Group on Individual Behaviour • Social Loafing • Group Polarisation	1) The students will be able to differentiate the nature and types of groups and explain how they are formed. 2) The students will be able to examine the influence of group on individual behavior.
December		First Pre Board Examination.	
January		Second Pre Board examination.	
February		CBSE Practical's And Theory Exams.	

ASSESSMENT PLANNER

Periodic Test - 1 40 Marks	Chapter -1 : Variations in Psychological Attributes Chapter - 3 : Meeting Life Challenges
Mid Term Exam- (September) Theory / Practical 70/30	SYLLABUS Chapter -1 : Variations in Psychological Attributes Chapter - 2 : Self and Personality Chapter - 3 : Meeting Life Challenges Chapter – 4 : Psychological Disorders

	Chapter – 5: Therapeutic Approaches
PRE BOARD – 1 & 2	SYLLABUS
Theory / Practical 70/30	<p>Chapter -1 : Variations in Psychological Attributes</p> <p>Chapter 2 :Self and Personality</p> <p>Chapter 3 Meeting Life Challenges</p> <p>Chapter 4 Psychological Disorders</p> <p>Chapter 5 Therapeutic Approaches</p> <p>Chapter 6 Attitude and Social Cognition</p> <p>Chapter 7 Social Influence and Group Processes</p>

COMPUTER SCIENCE

THE SUSTAINABLE DEVELOPMENT GOALS:

- 1) End poverty in all its forms everywhere**
- 2) End hunger, achieve food security and improved nutrition, and promote sustainable agriculture**
- 3) Ensure healthy lives and promote wellbeing for all at all ages**
- 4) Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all**
- 5) Achieve gender equality and empower all women and girls**
- 6) Ensure availability and sustainable management of water and sanitation for all**
- 7) Ensure access to affordable, reliable, sustainable and modern energy for all**
- 8) Promote sustained, inclusive and sustainable economic growth, full and productive employment & decent work for all**
- 9) Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation**
- 10) Reduce inequality within and among countries**
- 11) Make cities and human settlements inclusive, safe, resilient and sustainable**
- 12) Ensure sustainable consumption and production patterns**
- 13) Take urgent action to combat climate change and its impacts**
- 14) Conserve and sustainably use the oceans, seas and marine resources for sustainable development**
- 15) Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt and reverse land degradation, and halt biodiversity loss**
- 16) Promote peaceful and inclusive societies, provide access to justice for all and build effective, accountable and inclusive institutions at all levels**
- 17) Strengthen the means of implementation and revitalise the global partnership for sustainable development**

Learning outcomes of class XII for the subject Computer Science for class XII

OVREALL EARNING OUTCOMES –

- a. Create and analyse of function and recursion.
- b. Compose and Implement Python libraries.
- c. Understand and implement the concept of file handling.
- d. Evaluate the efficiency of algorithms and computing in general.
- e. Illustrate basic data structure: Stacks and Queues and connect with live problems.
- f. Understand basics of computer networks and implement in form of case studies.
- g. Integrate Database concepts, SQL along with connectivity between Python and SQL.

April

After the classes conducted during April, students will be able to

Chapter : Python-Function

- a. Define a function and understand the advantages of creating a function.
- b. Create a function which can receive argument and return a value/values.
- c. Differentiate between user defined and built in functions.
- d. Understand the difference passing mutable and immutable arguments to a function.
- e. To understand the different scope a variable.
- f. The order followed by python- LEGB rule.
- g. Accessing a global variable in presence of local variable with same name. Usage of global keyword.
- h. Able to write complex program involving functions with mutable and immutable arguments.

Chapter : Python Library Functions

- a. Define a module.
- b. Different methods to use import statements while using a module.
- c. Import String, Random and Math module.
- d. Differentiate between the usage of randint, randrange, uniform and random methods of random module.
- e. To evaluate the output of function associated with modules.

May

After the classes conducted during May, students will be able to

Chapter :Exception handling in Python

- a. Define exceptions in python.
- b. Usage of try and except block.
- c. Implementation of various types of Exception in a program.

Chapter :File Handling

- d. To understand the concept of file in connection to python.
- e. Relevance of file for saving data entered while executing a program.
- f. Concept of accessing text file using an object
- g. Implementation of the following operations in a text file
 - i. Opening
 - ii. Closing
 - iii. Reading
 - iv. Writing
 - v. Modifying
 - vi. Removing
- h. Different type of file modes available while opening file(a,w,r,a+w+,r+)
- i. Difference between read(),readline() and readlines() functions while accessing the data

July

After the classes conducted during July, students will be able to

Chapter :File Handling Continued

- a. Different types error streams implementations.
- b. Difference between text, csv and binary files.
- c. Implementation of the following operations in a CSV file
 - i. Opening
 - ii. Closing
 - iii. Reading
 - iv. Writing
 - v. Removing
 - vi. Modifying
- d. Implementation of the following operations in a Binary file
 - i. Opening
 - ii. Closing
 - iii. Reading
 - iv. Writing
 - v. Modifying
 - vi. Removing

August

After the classes conducted during August, students will be able to

Chapter : SQL

- a. Introduction to DBMS terms
 - a. Attribute
 - b. Tuple
 - c. Relation
 - d. Database
 - e. Keys
- b. Commands DDL:
 - a. Create

- b. Drop
- c. Alter
- c. Commands DML
 - a. Insert
 - b. Update
 - c. Delete
 - d. Select
- d. Operators in MYSQL
 - a. Logical operator
 - b. Special operator Like, in and between
- e. Implement each of DDL and DML command.
- f. Comprehend the need of constraints in a table.
- g. Detail implementation of various types of constraints.
- h. The need of creating a join in a table.
- i. Extracting data from more than one tables in sql by providing a join.
- j. Differentiate between natural, equi and cross join.
- k. Application based question on writing command involving joins.

September

After the classes conducted during September, students will be able to

Chapter: Connectivity with SQL database

- a. Steps required for Connecting SQL with Python
- b. Creating Database connectivity Applications

October

After the classes conducted during October, students will be able to

Chapter: Connectivity with SQL database Continued

- a. Performing following operations
 - a. Insert
 - b. Update
 - c. Delete queries
- b. Code to display data from database by using
 - a. fetchone()
 - b. fetchall()
 - c. rowcount()

November

After the classes conducted during November, students will be able to

Chapter: Data structures: Stacks and queues

- a. Label the different data structures in a programming language.
- b. Differentiate between datatype and data structure.

- c. Categorization of data structure as simple and compound.
- d. Understanding of following terminology
 - a. Stacks
 - b. Queues
- e. Operations in Stack
 - a. Push
 - b. Pop
 - c. Display

Chapter : Networking

- a. Define networking with respect to its implementation in form of computer network (SDG 7,8)
- a. Categorize the different types of networks on basis of the area covered by each type of network.
- b. Draw and explain the various ways of arranging computers in a network.
- c. Compare the various types of arrangement before deciding the best suitable layout.
- d. List the various types of transmission media use for networking.
- e. Understand the need of different types of devices.
- f. Differentiate between the installation of devices for connecting networks.
- g. Usage of need of protocols like HTTP,TCP/IP,HTML,PPP,TELNET

Please Note: In November students will be revising all the topics using board questions. Learning Outcome will be to familiarize with each part of question paper.

ASSESSMENT PLANNER-XII

Periodic Test - 1 40 Marks	SYLLABUS 1. <u>Functions</u> 2. <u>Built in Functions</u> 3. <u>Text File Opening , Reading and Writing.</u>
Half Yearly Exam Theory / Prac 70/30	SYLLABUS 1. Functions 2. Built in Functions 3. File handling in Python Text ,Binary and CSV) 4. SQL 5. Class XI python
PRE BOARD – 1 & 2 Theory / Prac 70/30	SYLLABUS 1. Functions 2. Built in Functions 3. SQL 4. Connectivity of python with SQL 5. File handling in Python(Text ,Binary and CSV) 6. Networking 7. Data Structures 8. Class XI python

MATHEMATICS

<p style="text-align: center;"><u>APRIL</u></p> <ul style="list-style-type: none">• INVERSE TRIGONOMETRIC FUNCTIONS(ITF)• CONTINUITY & DIFFERENTIABILITY• APPLICATIONS OF DERIVATIVES (AOD)	<p style="text-align: center;"><u>MAY</u></p> <ul style="list-style-type: none">• APPLICATIONS OF DERIVATIVES (AOD CONTD.)• INDEFINITE INTEGRALS
<p style="text-align: center;"><u>JULY</u></p> <ul style="list-style-type: none">• INDEFINITE INTEGRALS (CONTD.)• DEFINITE INTEGRALS	<p style="text-align: center;"><u>AUGUST</u></p> <ul style="list-style-type: none">• DEFINITE INTEGRALS(CONTD.)• APPLICATIONS OF INTEGRATION (A.O.I)• DIFFERENTIAL EQUATIONS (D.E.)
<p style="text-align: center;"><u>SEPTEMBER</u></p> <ul style="list-style-type: none">• MATRICES & DETERMINANTS• RELATIONS & FUNCTIONS	<p style="text-align: center;"><u>OCTOBER</u></p> <ul style="list-style-type: none">• RELATIONS & FUNCTIONS(CONTD.)• LINEAR PROGRAMMING• PROBABILITY
<p style="text-align: center;"><u>NOVEMBER</u></p> <ul style="list-style-type: none">• PROBABILITY (CONTD.)• VECTORS• 3D GEOMETRY	<p style="text-align: center;"><u>DECEMBER</u></p> <p style="text-align: center;">PREBOARD 1</p>
<p style="text-align: center;"><u>JANUARY</u></p> <p style="text-align: center;">PREBOARD 2</p>	

ASSESSMENT PLANNER

<u>Periodic Test - 1</u> 40 Marks	<u>SYLLABUS</u> <ul style="list-style-type: none">• INVERSE TRIGONOMETRIC FUNCTIONS• CONTINUITY & DIFFERENTIABILITY• AOD
<u>Half Yearly Exam</u> Theory / Practicals 80/20 TOTAL 100 Marks	<u>SYLLABUS</u> <ul style="list-style-type: none">• PA1 SYLLABUS AND• INTEGRALS• AOI• DIFFERENTIAL EQUATIONS• MATRICES• DETERMINANTS
<u>PRE BOARD – 1 & 2</u> Theory / Practicals 80/20 TOTAL 100 Marks	<u>SYLLABUS</u> <ul style="list-style-type: none">• COMPLETE SYLLABUS

LEARNING OUTCOMES

CH- 1 RELATIONS & FUNCTIONS

The students will be able to:

- i. Identify the various types of relations, apply the concepts to solve related problems.
- ii. Identify the various types of functions, apply the concepts to solve related problems.

CH- 2 INVERSE TRIGONOMETRIC FUNCTIONS

The students will be able to:

- i. Identify the Inverse Trigonometric functions (ITFs) and discuss their principal ranges.
- ii. List the properties of different ITFs
- iii. Apply the concept to solve related problems by associating with their respective domain and range.

CH- 3 & 4 MATRICES AND DETERMINANTS:

The students will be able to:

- i. Represent and solve the given problem using Matrices and Determinants.
- ii. Compute the product and inverse of matrices and solve simultaneous equations using determinants.
- iii. Apply the concept of determinants to find equation of a line, area of a triangle, collinearity of points.

CH- 5 CONTINUITY & DIFFERENTIATION

The students will be able to:

- i. Identify the characteristics of a continuous and differentiable function,
- ii. Distinguish between LHL and RHL, LHD and RHD
- iii. Discuss the continuity of different types of functions
- iv. Identify the types of functions and the method of differentiation to be used.
- v. Apply the concepts to solve related problems.

CH- 6 APPLICATION OF DERIVATIVES (A.O.D)

The students will be able to:

- i. Recognize the role of derivatives in our day-to-day life.
- ii. Relate the concept of derivatives with rate of change of variables.
- iii. Identify increasing and decreasing functions.
- iv. Visualize the geometrical interpretation of derivatives.
- v. Compute maxima and minima of a function.
- vi. Apply the concepts to solve related problems.

CH-7 INTEGRALS

The students will be able to:

- i. Point out the difference between derivatives and integrals and compare the geometrical interpretation of both and relate it to various problems.
- ii. Distinguish between the various functions given, identify the different techniques of integration, and apply them to solve related problems.
- iii. Recognise the properties of definite integrals and use them to solve problems.
- iv. Compare definite and indefinite integrals.

CH- 8 APPLICATION OF INTEGRALS

The students will be able to:

- i. Apply the concept of integration to compute the area under curves.
- ii. Recognise the different kinds of areas and use appropriate methods to compute them.

CH- 9 DIFFERENTIAL EQUATIONS

The students will be able to:

- i. Calculate the order and degree of a given differential equations.
- ii. Identify the various types of differential equations and apply the appropriate method to solve them.

CH- 10, 11: VECTORS & 3-D

The students will be able to:

- i. Visualise the concepts of vectors and 3-D and be able to correlate them suitably.
- ii. Compute the dot product and cross product of two vectors and use it to find the projection of a vector, calculate the area enclosed by a triangle and parallelogram.
- iii. Write the equation of a line in vector and Cartesian form using the given conditions.
- iv. Reduce a problem to the basic, visualise it and apply the concepts to solve various complex problems.

CH- 12 LINEAR PROGRAMMING

The students will be able to:

- i. Describe the concept of feasible region, corner points, bounded & unbounded region and illustrate them graphically.

CH- 13 PROBABILITY

The students will be able to:

- i. Recall the concepts of probability taught in class XI, appreciate the concept of conditional probability and solve the related problems.
- ii. Distinguish between dependent and independent events and solve the related problems.

- iii. Apply the multiplication theorem, Bayes theorem suitably.
- iv. Define a random variable and form the probability distribution table.
- v. Compute the mean of a probability distribution.

WEB APPLICATIONS (803)

ITDC–410 Movie Editing Tools.

MARCH, APRIL AND MAY

Students will be able to :

- ✓ Understand and Explain the concept of Movie Editing Tools.
- ✓ Identify and Outline the different Movie Editing Tools.
- ✓ Interpret, Breakdown and Describe the interface of Windows Movie Maker(WMM).
- ✓ Point out and Describe the different Panes in WMM.
- ✓ Compare and Contrast the different Views in WMM.
- ✓ Identify, Categorize and Explain using Examples, the different file formats recognized by WMM.
- ✓ Discover and Operate the different Options in WMM.
- ✓ Demonstrate proficiency by Designing and Constructing short Movies or Clips using WMM by Illustrating:
 - Importing Media into WMM.
 - Adding Transitions.
 - Combining Clips.
 - Splitting Clips.
 - Trimming Clips.
 - Adding Title and Credits.
 - Saving and Publishing Movies.
- ✓ Compare and Contrast the operations of Splitting, Trimming and Combining Clips
- ✓ Compare and Contrast the operations of Saving a Project and Publishing a Movie in WMM.

ITDC–411 Customizing and Embedding Multimedia components in Web Pages.

MAY

Students will be able to :

- ✓ Differentiate and Distinguish different types of Media.
- ✓ Define, Explain and Illustrate with the help of Examples, Multimedia.
- ✓ Enumerate, Explain and Illustrate with Examples the advantages and Disadvantages of Embedding Multimedia in Web pages.
- ✓ Identify and Describe the various compatible Multimedia (Images, Movies, Sound) file formats for Web pages.
- ✓ Understand and Demonstrate the use of the BGSOUND, EMBED, OBJECT and PARAM, AUDIO, VIDEO tags and their Attributes.
- ✓ Demonstrate proficiency by Designing and Constructing web pages that contain embedded multimedia elements.
- ✓ Understand, Define and Illustrate with Examples, Helper Applications, Plugins and MIDI.
- ✓ Discover and Explore different tools for embedding different types of Multimedia.

Students will prepare their Practical files.
Students will start work on their Projects.

ITDC–412 Web Scripting – Java Script.

JULY

Students will be able to :

- ✓ Describe and Explain the features and applications of Javascript.
- ✓ State and Explain with examples, the advantages of using Javascript.
- ✓ Explain and Demonstrate the different ways to write Javascript.
- ✓ Define variables and Explain with examples the need for variables.
- ✓ Classify and Interpret the different data types supported by Javascript.
- ✓ Demonstrate proficiency by Designing and Constructing scripts using variables to store different types of data.
- ✓ Demonstrate proficiency by Designing and Constructing scripts to Illustrate the manipulation of different types of data.
- ✓ Identify, Classify and Differentiate between different types of Operators.
- ✓ Demonstrate proficiency by Designing and Constructing scripts to Illustrate the working of different Operators.

AUGUST

Students will be able to :

- ✓ Define and Summarize the different decision constructs or selection statements and Illustrate their importance in coding.
- ✓ Demonstrate proficiency by Designing and Constructing scripts to Illustrate the working of different types of selection statements (if-else / switch-case).
- ✓ Define and Summarize the different types of iterations / loops and Illustrate their importance in coding.
- ✓ Demonstrate proficiency by Designing and Constructing scripts to Illustrate the working of different types of loop statements (while / do-while / for).

SEPT

Students will be able to :

- ✓ Identify, Differentiate and Define the different popup boxes (alert / confirm / prompt) in Javascript.
- ✓ Demonstrate proficiency by Designing and Constructing scripts to Illustrate the usage of popup boxes (alert / confirm / prompt) in Javascript.
- ✓ Appraise and Define what is a function.
- ✓ Enumerate and Explain with examples the advantages of functions.
- ✓ Express, Differentiate and Demonstrate function parameters and function arguments.
- ✓ Define, Explain and Demonstrate the return keyword.
- ✓ Demonstrate proficiency by Designing and Constructing scripts to Illustrate different User-Defined functions.
- ✓ Understand, Define and Demonstrate the scope of variables (Local / Global).
- ✓ Demonstrate proficiency by Designing and Constructing scripts that Incorporate Local and Global variables.

OCTOBER

Students will be able to :

- ✓ Discover and Explain the DOM (Document Object Model) in Javascript.
- ✓ Breakdown, Point out and explore the different Objects in the DOM.
- ✓ Discuss, Define and Illustrate with examples, Objects and their properties and functions.
- ✓ Explore, Discover and Explain the properties and functions of the Math Object.
- ✓ Demonstrate proficiency by Designing and Constructing scripts that use the properties and functions of the Math Object.
- ✓ Explore, Discover and Explain the properties and functions of the String Object.
- ✓ Demonstrate proficiency by Designing and Constructing scripts that use the properties and functions of the String Object.
- ✓ Explore, Discover and Explain the properties and functions of the Array Object.
- ✓ Demonstrate proficiency by Designing and Constructing scripts that use the properties and functions of the Array Object.
- ✓ Discover, Explain and Define events and event handling.
- ✓ Demonstrate proficiency by Designing and Constructing scripts that respond to events.

ITDC-413 Work Integrated Learning - Advanced Features of Web Design – WA-II.

NOVEMBER

Students will be able to :

- ✓ Discuss and Define the need for Microsoft Expression Web (MEW)
- ✓ Discover and Explore the CODE View of MEW.
- ✓ Understand the need for, Define and Demonstrate the Use of Snippets, Add-Ins.
- ✓ Apply Page Transitions to Web pages.
- ✓ Examine and Describe Dynamic Web Templates, and Infer the benefits therefrom.
- ✓ Demonstrate proficiency by Designing and Constructing web pages using Dynamic Web Templates.
- ✓ Define and Explain Search Engine Optimization (SEO).
- ✓ Demonstrate proficiency by Designing and Constructing web pages using Forms.
- ✓ Discuss, Understand and Define the Concepts of Publishing Web pages in MEW.
- ✓ Explore and Identify tools to examine the Structure of a Web site.
- ✓ Examine and Test a Web site to Infer whether it is optimized or not
- ✓ Demonstrate and Explain how to Optimize a Web site.
- ✓ Understand and Define Web Hosting and Web Servers.
- ✓ Explain the need for CSS and Demonstrate how to use CSS templates in MEW.
- ✓ Explore, Discover and Describe different Web Authoring Tools.

EMPLOYABILITY SKILLS

OCTOBER TO DECEMBER

- ✓ Communication Skills - IV
 - Demonstrate knowledge of various methods of communication
 - Provide descriptive and specific feedback

- Apply measures to overcome barriers in communication
- Apply principles of communication
- Demonstrate basic writing skills
- ✓ Self-management Skills - IV
 - Apply stress management techniques
 - Demonstrate the ability to work independently
- ✓ Information and Communication Technology Skills - IV
 - Distinguish between different operating systems
 - Apply basic skills for care and maintenance of computer
- ✓ Entrepreneurial Skills - IV
 - List the characteristics of successful entrepreneur
- ✓ Green Skills - IV
 - Demonstrate the knowledge of importance, problems and solutions related to sustainable development

RECAP

<u>MARCH</u> ITDC-410 Movie Editing Tools.	<u>APRIL</u> ITDC-410 Movie Editing Tools.
<u>MAY</u> ITDC-410 Movie Editing Tools. ITDC-411 Customizing and Embedding Multimedia components in Web Pages.	<u>JUNE</u>
<u>JULY</u> ITDC-412 Web Scripting – Java Script.	<u>AUGUST</u> ITDC-412 Web Scripting – Java Script.
<u>SEPTEMBER</u> ITDC-412 Web Scripting – Java Script.	<u>OCTOBER</u> ITDC-412 Web Scripting – Java Script. EMPLOYABILITY SKILLS
<u>NOVEMBER</u> ITDC-413 Work Integrated Learning - Advanced Features of Web Design – WA-II. EMPLOYABILITY SKILLS	<u>DECEMBER</u> ITDC-413 Work Integrated Learning - Advanced Features of Web Design – WA-II.
<u>JANUARY</u> RECAP	<u>FEBRUARY</u> RECAP

ASSESSMENT PLANNER

Periodic Test - 1	SYLLABUS
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40 Marks	ITDC–410 Movie Editing Tools. ITDC–411 Customizing and Embedding Multimedia components in Web Pages.
Half Yealy Exam Theory / Prac 60/40	SYLLABUS THEORY ITDC–410 Movie Editing Tools. ITDC–411 Customizing and Embedding Multimedia components in Web Pages. ITDC–412 Web Scripting – Java Script. PRACTICALS ITDC–410 Movie Editing Tools. ITDC–411 Customizing and Embedding Multimedia components in Web Pages. ITDC–412 Web Scripting – Java Script.
Annual Exam Theory / Prac 60/40	SYLLABUS COMPLETE SYLLABUS (Including First Term) EMPLOYABILITY SKILLS PRACTICALS ITDC–410 Movie Editing Tools. ITDC–411 Customizing and Embedding Multimedia components in Web Pages. ITDC–412 Web Scripting – Java Script.

INFORMATION TECHNOLOGY (802)

UNIT 1: DATABASE CONCEPTS – RDBMS TOOL

MARCH, APRIL AND MAY

Students will be able to :

- ✓ Understand and Explain Relational Database Management System.
- ✓ Describe Database and its purpose.
- ✓ Define the Components of a table
- ✓ Understand and discuss the Relational Database Model
- ✓ Define the Terminology (Relation, Tuple, Attribute, Cardinality)
- ✓ Understand and explain Keys (Primary, Candidate, Alternate, Foreign)
- ✓ Understand and work with SQL Commands for:
 - Creating and Opening Databases.
 - Creating and populating tables.
 - Modifying the content and structure of table.
 - Ordering and Grouping.
 - Operating with multiple tables.

MAY

Students will prepare their Practical files.

Students will start work on their Projects

UNIT 4: WORK INTEGRATED LEARNING IT – DMA

Students will work at :

- ✓ Identification of Work Areas.
- ✓ Getting hands-on Work Experience.

UNIT 2: OPERATING WEB BASED APPLICATIONS

JULY

Students will be able to :

- ✓ Understand, Analyze and Discuss:
 - Online Reservation Systems.
 - E-Governance.
 - Online Shopping and Bill payments.
 - Online Tutorials and Tests.
- ✓ Understand and explain the phases of Project Management in Web Based Application development.
- ✓ Implement the phases of Project Management in their own Projects.

UNIT 3: FUNDAMENTALS OF JAVA PROGRAMMING

AUGUST TO OCTOBER

Students will be able to :

- ✓ Appreciate the concept of Oriented Programming
- ✓ Understand the basics of the Java Language
- ✓ Understand and implement Operators
- ✓ Understand and implement Control Flow
- ✓ Understand and define Arrays
- ✓ Appreciate the concepts of Class Design
- ✓ Appreciate Exception Handling.
- ✓ Understand Assertions
- ✓ Understand Multithreading and Threads
- ✓ Understand and define Wrapper Classes
- ✓ Implement String Manipulation

**EMPLOYABILITY SKILLS
NOVEMBER TO DECEMBER**

- ✓ Communication Skills - IV
 - Demonstrate knowledge of various methods of communication
 - Provide descriptive and specific feedback
 - Apply measures to overcome barriers in communication
 - Apply principles of communication
 - Demonstrate basic writing skills
- ✓ Self-management Skills - IV
 - Apply stress management techniques
 - Demonstrate the ability to work independently
- ✓ Information and Communication Technology Skills - IV
 - Distinguish between different operating systems
 - Apply basic skills for care and maintenance of computer
- ✓ Entrepreneurial Skills - IV
 - List the characteristics of successful entrepreneur
- ✓ Green Skills - IV
 - Demonstrate the knowledge of importance, problems and solutions related to sustainable development

RECAP

<u>MARCH</u> UNIT 1: DATABASE CONCEPTS – RDBMS TOOL	<u>APRIL</u> UNIT 1: DATABASE CONCEPTS – RDBMS TOOL
<u>MAY</u> UNIT 1: DATABASE CONCEPTS – RDBMS TOOL	<u>JUNE</u>
<u>JULY</u> UNIT 2: OPERATING WEB BASED APPLICATIONS	<u>AUGUST</u> UNIT 3: FUNDAMENTALS OF JAVA PROGRAMMING

<u>SEPTEMBER</u> UNIT 3: FUNDAMENTALS OF JAVA PROGRAMMING	<u>OCTOBER</u> UNIT 3: FUNDAMENTALS OF JAVA PROGRAMMING
<u>NOVEMBER</u> EMPLOYABILITY SKILLS	<u>DECEMBER</u> EMPLOYABILITY SKILLS
<u>JANUARY</u> REVISION	<u>FEBRUARY</u> REVISION

ASSESSMENT PLANNER

Periodic Test - 1 40 Marks	SYLLABUS UNIT 1: DATABASE CONCEPTS – RDBMS TOOL
Half Yearly Exam Theory / Prac 60/40	SYLLABUS THEORY UNIT 1: DATABASE CONCEPTS – RDBMS TOOL UNIT 2: OPERATING WEB BASED APPLICATIONS PRACTICALS UNIT 1: DATABASE CONCEPTS – RDBMS TOOL UNIT 2: OPERATING WEB BASED APPLICATIONS
PB1 AND PB2 Theory / Prac 60/40	SYLLABUS COMPLETE SYLLABUS (Including First Term) EMPLOYABILITY SKILLS PRACTICALS UNIT 1: DATABASE CONCEPTS – RDBMS TOOL UNIT 2: OPERATING WEB BASED APPLICATIONS UNIT 3: FUNDAMENTALS OF JAVA PROGRAMMING